

Scale AVIATION Modeller International

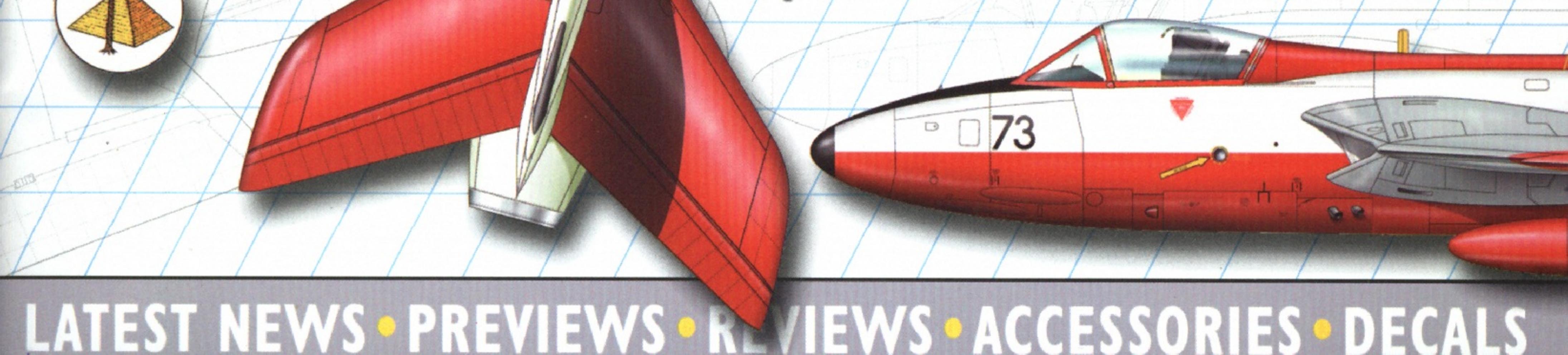
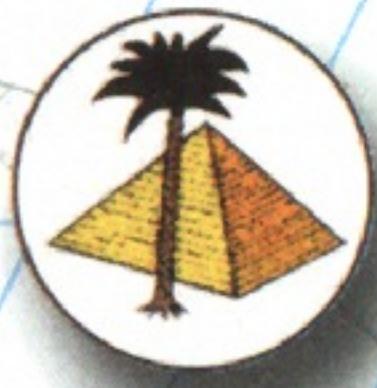
WITH
PULL OUT
SCALE PLANS

Single-seat Hawker Hunter

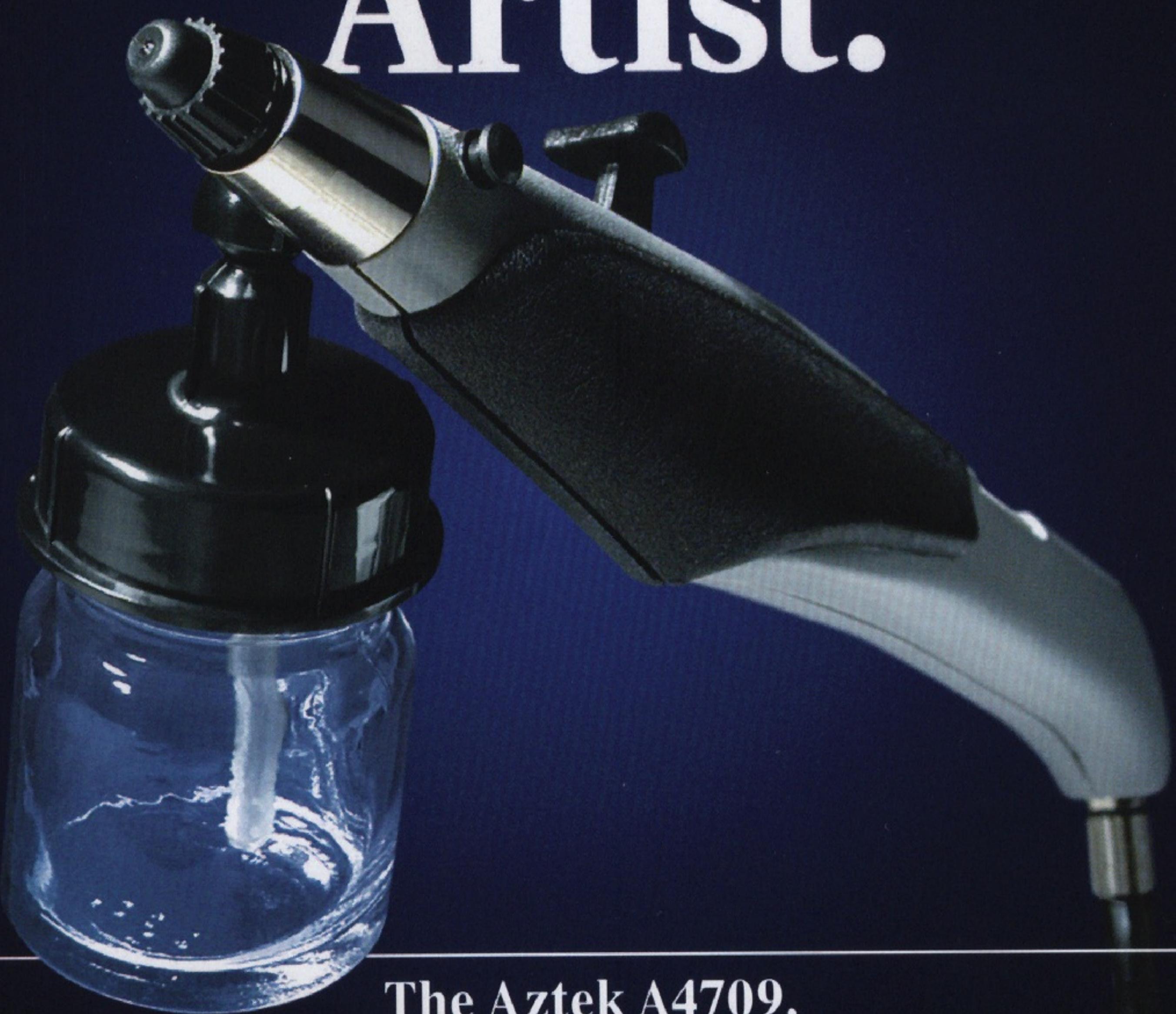
by Richard J. Caruana

Volume 10 Issue 4 April 2004 £3.80
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Heinkel He 177A-3
Beechcraft T-34C
Wildcat Prototype
Sopwith F.I & 2F.I Camel



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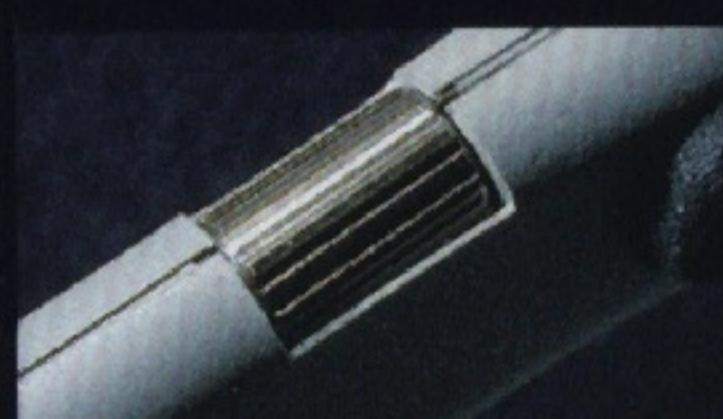
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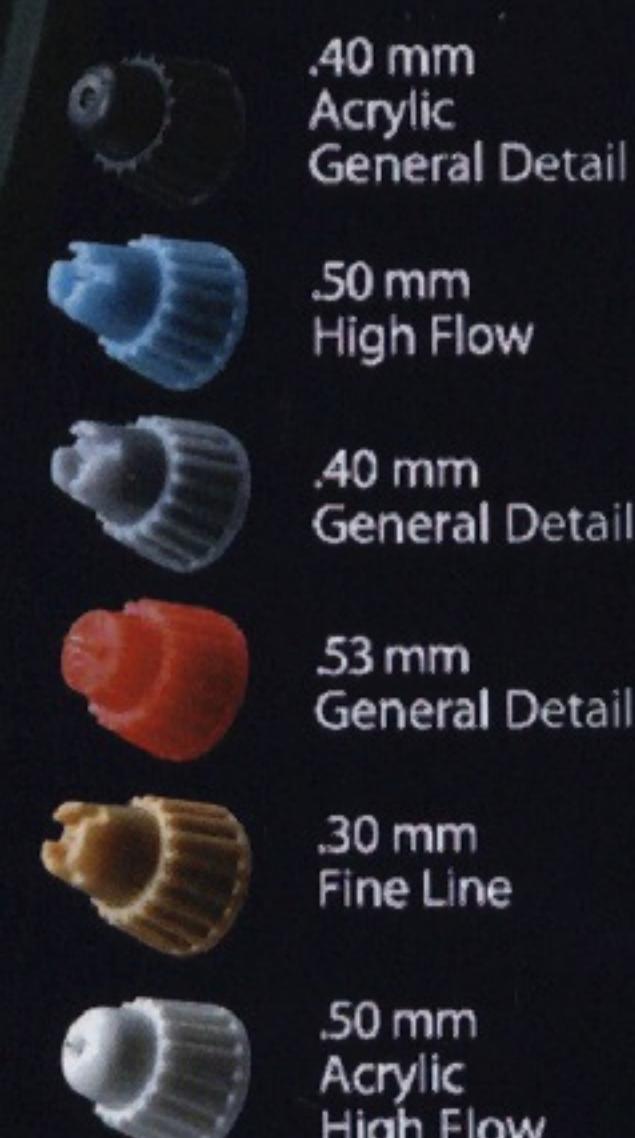
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AZTEK

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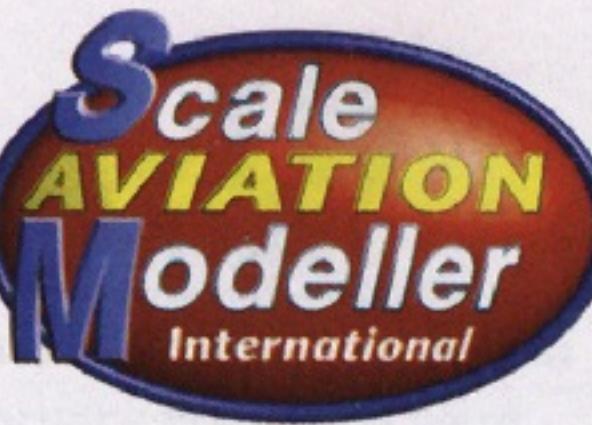
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Questions to Contributors

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Samples for Review

Scale Aviation Modeller International is always happy to review new products within its pages. Any item which you feel is appropriate will be given due consideration for inclusion in the title. Any company, trade representative, importer, distributor or shop which wishes to have products reviewed within Scale Aviation Modeller International should send them directly to the editorial address and clearly mark them for the attention of the Editor. Confirmation of receipt of the samples will be supplied if requested. For all international companies etc the above applies, but please ensure that the package is clearly marked for customs as a 'sample, free of charge' to reduce the risk of unnecessary delays. Thank you.

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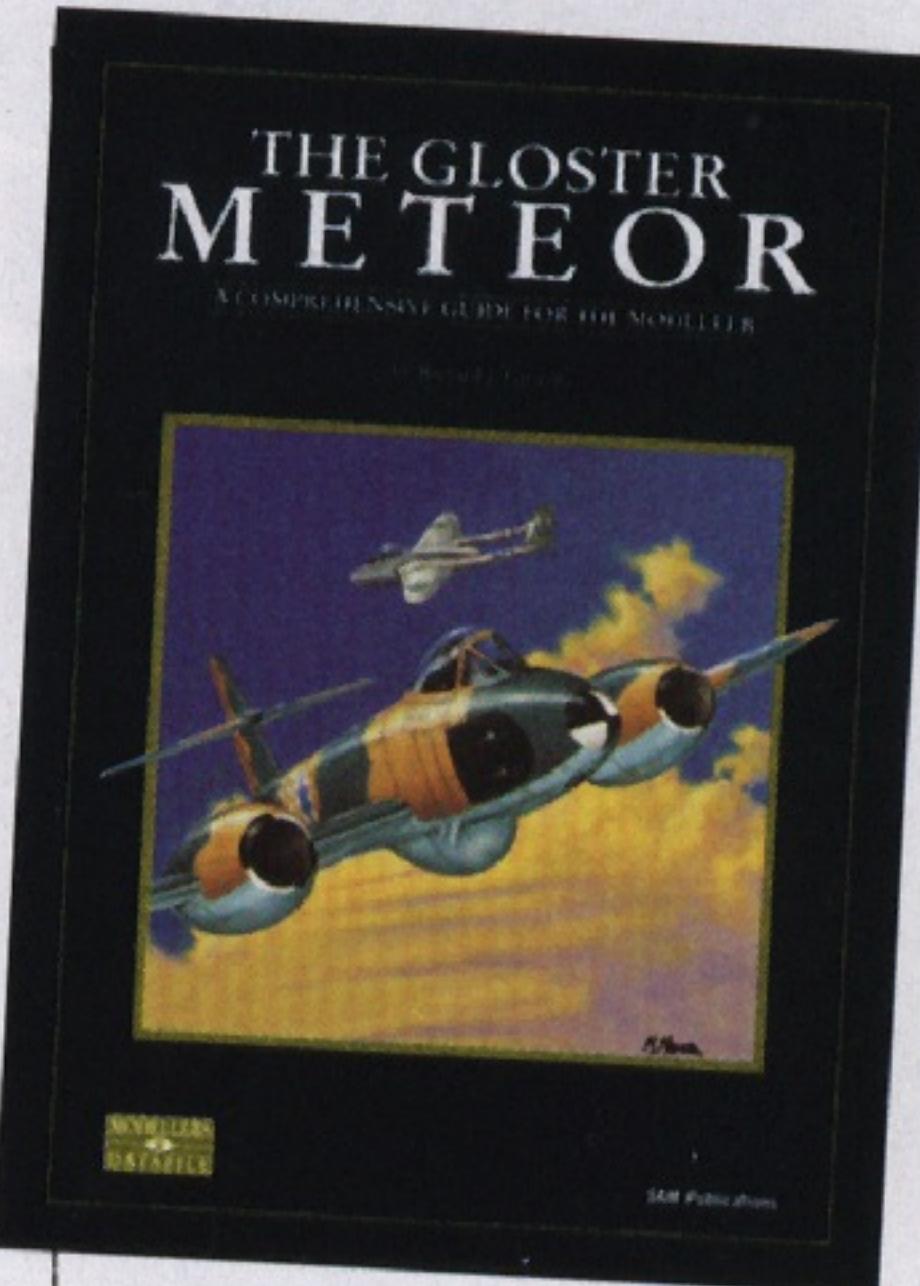
editorial

Relief at last!

In the past three years many of you may have been aware that I have not only been doing the job of editor for this magazine but also editing our two sister magazines; Model Aircraft Monthly and Scale Models International. This was never the intention, and it was never an easy task by any stretch of the imagination. Thankfully though, in February 2004 SAM Publications was able to procure the services of two new editors for these titles and so, at last, I am free of the responsibility and burden of work associated with three titles per month. This is a huge relief for me, as the task was becoming more and more onerous as time went by and I do not think that the same editor on a number of titles is ever a good idea. My modelling interests have been somewhat diluted over these

three years and I have found myself interested once again in things other than aircraft (shame on me!). Well, no more, as at last I can concentrate on aircraft modelling once again and get back into the swing of working on this magazine exclusively each month. Don't worry if you are all thinking I will be having an 'easy' life now, no way, I still have the Modellers' Datafile series to create and direct (let me take this opportunity to apologise for the delay in MDF8, but I have simply not had time in a day to work on it until now), as well as a few more interesting projects, but I will say no more on these for now.

Having been somewhat overloaded with work the past three years I have had little time to



concentrate on the aviation side of the hobby, but looking back at this point I can see that it has been a period of huge expansion and I am still wondering at the sanity of a

hobby that has once again returned to 1/24th scale! Personally I love it, all we need to do know is persuade a manufacturer to make the Mosquito in 1/32nd or 1/24th scale, I would be happy with either... or both! Our hobby is buoyant, there are loads of new products around, and the only thing we are all probably lacking is something we can do nothing about, and that is a lack of time to pursue our hobby in. Now, all I need is to incorporate my '72 hour, 10 day week' system that I used to have to use as an editor of three magazines into my modelling and I am home and dry!

Have fun, enjoy the hobby and keep on buying and building.

Richard A. Franks

Editor, Scale Aviation Modeller International

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news update



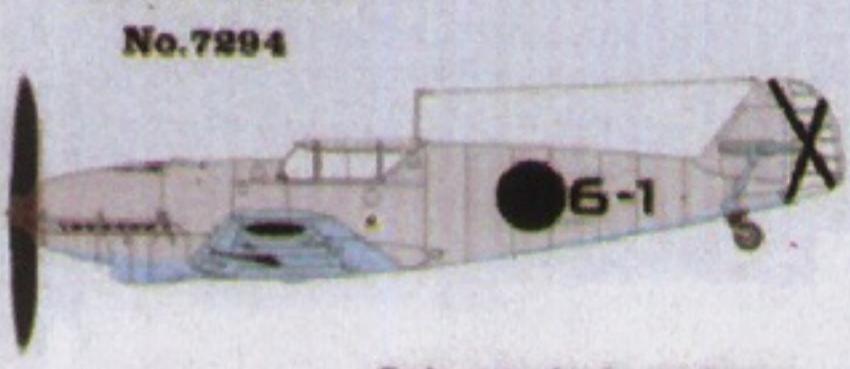
1/72nd

Apparently due for release in the Far East during March is the long-awaited all-new tooling of the LTV F-8E Crusader (#1615/¥1800), so hopefully it will be also be available elsewhere by the time you read this.

HR model

Messerschmitt Bf-109V3

Resin kit 1:72
No. 7294



1/72nd

One of the most recent new resin kits in this range is the Messerschmitt Bf 109 V3 'Legion Condor' (#7294/£16.60), which comes complete with decals and white-metal detail parts.



1/48th

Released in Japan during early January was the all-new Me 262 Mistel (#5541/¥3900).



Due for release in April is the Junkers Ju 88C-6 Night Fighter (#5540/¥4000) kit. This is not a reissue, as the previous C-6 version produced by Dragon was the Zestörer; this new night fighter version will feature a revised nose, new canopy, new flame dampers on the exhausts, photo-etched antenna array and decals printed by Cartograf (who many will have noted seem to be doing all Dragon's decals of late). There is no confirmed UK release date or price on this item as we go to press, but it is scheduled for release in America during March with a retail price tag of \$39.95.



1/100th

As part of their limited reissue schedule, Tamiya have recently made the SAAB J-35F Draken (#60006/¥900) available once again.

1/72nd

Due for release in Japan during March in this scale is the all-new kit of the Republic P-47D Thunderbolt 'Razorback' (#60769/¥1400).



Reissued in Japan in this scale recently was the Aichi D3A1 Type 99 Dive Bomber (#60510/¥1600).

1/48th

Due for release in Japan during March in this scale is the revised Gekko in the form of the J1N1-Sa version (#61093/¥3400).

1/32nd

Noted on sale in Japan in this scale was the Mitsubishi A6M5 Zero Fighter (#89622/¥7800) complete with the engine sound CD that came in the 'Propeller Action' version in 2002.



1/144th

Noted as available in Japan in this scale are the B-29 Superfortress 'Dauntless Dotty' (#14401/¥1800) and B-29 'Heavenly Laden' (#14407/¥1800).

1/72nd

Apparently available in Japan in this scale are the Tachikawa Ki-55 Advanced Trainer (#20001/¥350), EH-60A 'Quick Fix' (#25005/¥800), F-14A Tomcat 'Jolly Rogers' (#28002/¥1800), F-14D Tomcat 'US Navy Iraqi Freedom' (#28010/¥2500), RH-53D Sea Stallion (#33006/¥2400), A-4KU Skyhawk 'Free Kuwait' (#35108/¥1000), MiG-21 'Pin-up Mig' (#35110/¥1500), A-4B Skyhawk with Maverick (#72139/¥2000),

E-2C Hawkeye 'French/Israel Air Force' (#72148/¥2300), A-6E Intruder 'Eagles A-6 Last Flight' (#72149/¥2000), F-14 Tomcat 'Black Knight' (#72152/¥2500), McD F/A-18A Hornet 'NASA' (#72156/¥2200), E-2C Hawkeye 'Special Marking'

(#72158/¥2200) and the CH-46E 'Dragons' (#72159/¥1800).

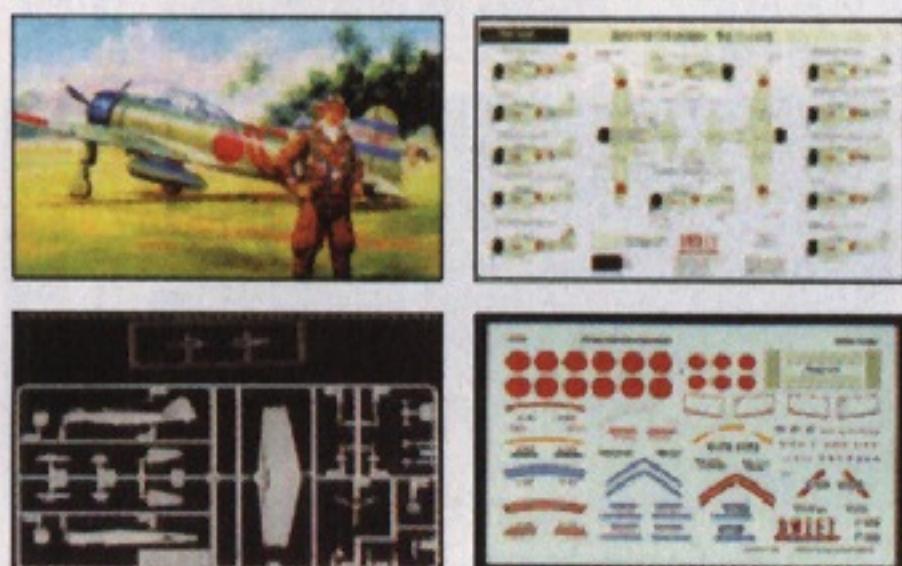
Noted for reissue in Japan during March in this scale are the McDD F-4S Phantom II 'Black Bunny' (#26021/¥1000) and the McDD F-4C/D Phantom II 'Vampire' (#26022/¥1000).

I/48th

Back on sale in Japan in this scale are the Messerschmitt Bf 109G/K (#30001/¥700), Mitsubishi Zero Fighter Model 21 (#30002/¥700), N.A. P-51D Mustang (#30003/¥700), Focke-Wulf Fw 190A-6 (#30004/¥700), V.S. Spitfire Mk V (#30005/¥700) and F-14 Super Tomcat (#33003/¥2500).

Due for reissue in Japan in this scale during March are the Focke-Wulf Fw 190D-9 (#30006/¥700), Douglas Skyraider (#30008/¥700), Messerschmitt Bf 110C/D (#30009/¥700), Bell AH-1S Cobra 'Step III' (#30135/¥1000), Bell UH-1N Iroquis (#30136/¥1000) and the Westland Lynx ASW (#30137/¥1000).

SWEET



I/144th

Due for release during April is the all-new tooling of the Mitsubishi A6M2 Zero Fighter (#14107/¥1000).

VALOM

I/72nd

Due for release from this manufacturer by the time you read this should be the Boeing XF8B.

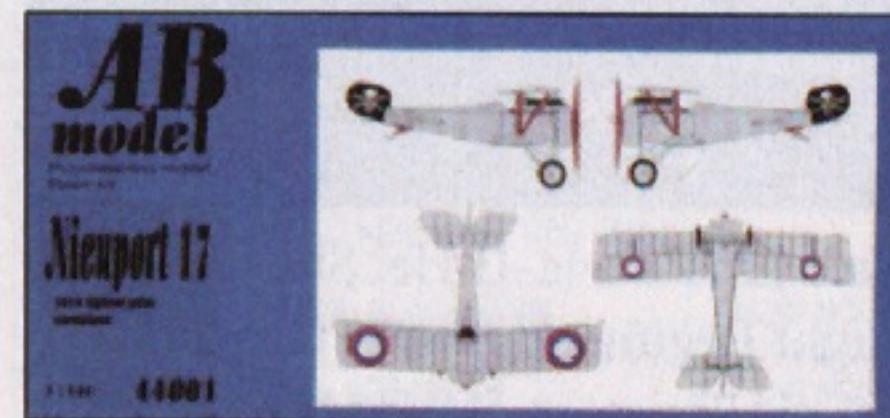
Revell MONOGRAM

I/48th

Due for release in March is the A-10 Warthog (#5521/\$19.20).

AB model

This is a new name to us, but in mid-February Hannants were carrying stock of the items below.



I/144th

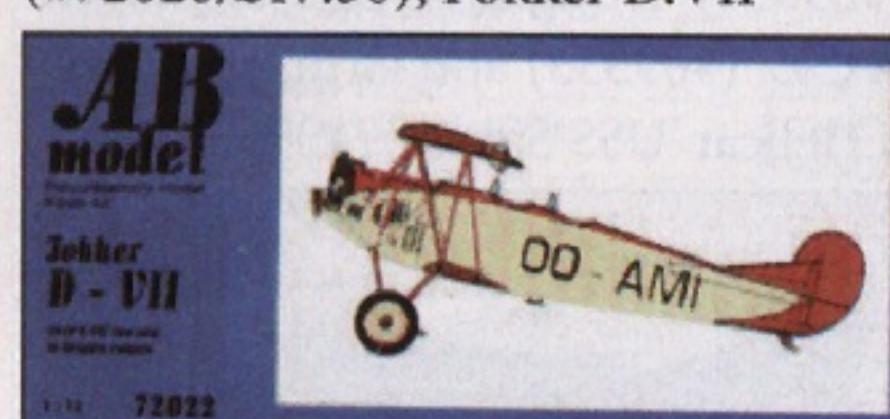
In this scale there is only the Nieuport 17 (#44001/£7.60).

I/72nd

In this scale though there are kits of the Polikarpov Po-2S-1 (#72013/£15.25), Polikarpov Po-2S-2 (#72014/£15.60), Polikarpov VU-2 (#72015/£15.25), Polikarpov Po-2SV



(#72016/£13.15), Polikarpov Po-2W (#72017/£12.45), Polikarpov Po-2M Floatplane (#72018/£18.70), Fokker D-VII Two Seat Version (#72020/£17.30), Fokker D.VII



[Belgium] (#72022/£17.30), Fokker D.VII [CS] (#72023/£17.99), Fokker M-9 (#72026/£21.45), Aero A-17 (#72027/£8.99) and the D-1 Experimental glider (#72028/£8.99).

All these kits (both scales) are resin.

unicraft



I/72nd

Reissued in late February was the resin kit of the Martin Baker Tankbuster (#7256/#21.99), which now comes with decals.

TRUMPETER

I/72nd

Released in mid-February in this scale was the Xian FBC-1 'Flying Leopard' (#01608/£15.95).

Scheduled for March release is the Tupolev Tu-142MR Bear J (#01609/¥10800).



I/35th

Arriving at last in this scale during late February was the all-new tooling of the Mil Mi-24 Hind E (#05103/£69.95).

I/32nd

Seen by many at the German Toy Fair recently, the all-new kit of the Lockheed P-38L-5-LO Lighting (#02227/¥12800) is apparently due for release during March.



I/24th

Released at the end of February in this scale was the Nakajima A6M-2N 'Rufe' (#02410/£79.95).

Vintage

I/24th

Many people seem to be unable to believe the news we quoted last week about this new manufacturer, so I will repeat it so you know it was not a mistake!

Due for release during April and May will be three versions of the P-40 in this scale. These will comprise the P-40B/C 'Pearl Harbor', 'AVG - Flying Tigers' and a British Tomahawk. Each kit will consist of injection moulded plastic with resin detail parts, photo-etched, a

motorised propeller, grain-of-wheat bulbs for the navigation lights, a separate pilot in full flying kit, retractable undercarriage, sliding canopy, moveable flaps and ailerons and three to five decal options. Retail price should be £44.99 each. Visit www.vintagefighterseries.com for more details.

Revell



I/144th

Due for release in the first quarter of 2004 in this scale is the all-new tooling of the Grumman F-14A Tomcat 'Black Bunny' (#04029/£2.99).

I/72nd



The only items due for release in this scale during the first quarter are the reissue of the Hawker Hurricane Mk IIc (#04144/£3.99) and the Sukhoi



Su-27 Flanker (#04319/£13.99). Not having seen it we presume the latter is the Italeri kit, although at that price it would be nice if it was the Hasegawa tooling!



I/48th

First quarter releases in this scale include the Dassault Falcon 10

kopro
...now it's hobby time

3168 Sukhoi Su-25 UBK Frogfoot B 1:48
now in sale



www.kopro.net

[ex-Hasegawa] (#04217/£12.99), Sopwith Camel [ex-Monogram] (#04580/#6.99), Douglas A-1H Skyraider [ex-Monogram]



(#04584/£13.99), Lockheed X-35 JSF



[ex-Italeri] (#04587/£14.99) and



McDD FGR.2 Phantom [ex-Hasegawa] (#04588/£22.99).

I/32nd

Already released in this scale is the ex-Hasegawa Focke-Wulf Fw 190D-9 (#04725/£16.99) complete with early and late tails!

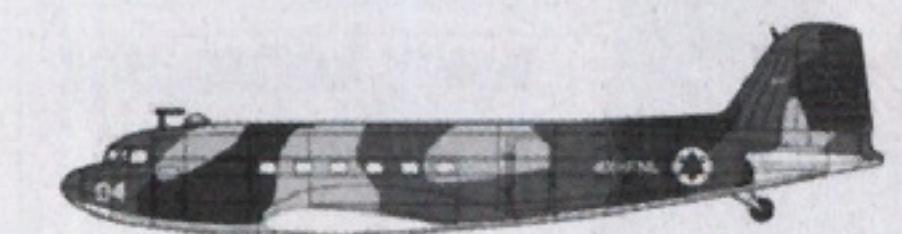


I/200th

Released in Japan during February were the Airbus A321 'Prototype' (#10648) and MD-90 'JAL' [New Markings] (#10651).



Due for release during March are the Boeing 767-200 'American Airlines' (#10653/£1600) and the Boeing 747-400 in the new Northwest colours (#10652/£1800).



Due for release during April will be the Douglas C-47 Dakota 'Israeli Air Force' (#10654) and the Boeing 747-400 'Lufthansa' (#10707).



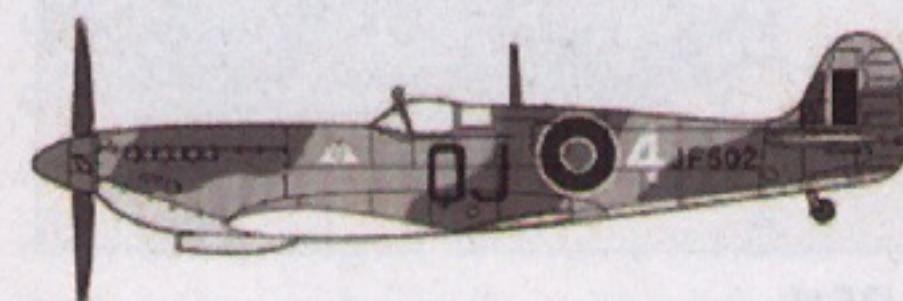
I/72nd

March releases in this scale include

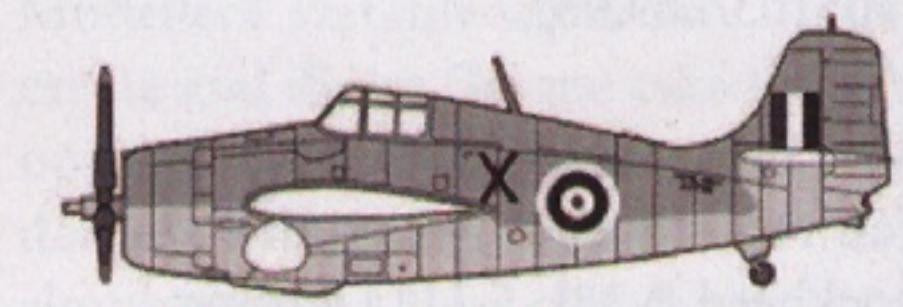
the McDD F/A-18E Super Hornet (#E19/£1800), Lockheed S-3B Viking 'VS-21 Fighting Redtails' (#00688), North American P-51B/C Mustang 'Blue Nose' (#00689/£1400), Mitsubishi J2M3 Raiden '302nd



Flying Group' (#00690/£1400), Grumman F9F-8 Cougar 'VT-26' (#00691/£1400), V.S. Spitfire Mk VIII



'Pointed Wing' (#00692/£1400) and McDD F-4EJ Kai Phantom '301st Sqn 30th Anniversary' (#00693).



April releases in this scale should include the Grumman Martlet Mk III 'No.805 Squadron' (#00694), IAI Kfir C2 '143rd Squadron' (#00695),



Nakajima Ki-44-II Shoki 'Flight Training Squadron' (#00696), Grumman F6F-5K Hellcat 'Target-Tow Plane' (#00697), Cessna



T-37C 'ASAS De Portugal' (#00698), Lockheed F-104S Starfighter '82nd Anniversary' (#00699), McDD F-15A



Streak Eagle (#00700) and the F-16C Fighting Falcon 'Blue Nose' (#00701).



I/48th

Due for release in the UK during early to March 2004 in this scale will be the North American P-51D Mustang 'Blue Nose' (#09527),



Mitsubishi A6M2b Zero Type 21 'All Green' (#09528), Chance-Vought

F4U-4B Corsair 'Korean War 1951' (#09529), Aichi D3A1 Type 99 Model 11 'Coral Sea War' (#09530),



Nakajima Ki-44-II Hei Shoki '104th Flight Regiment' (#09531), McDD RF-4B Phantom II 'USMC' (#PT31) and McDD RF-4E Phantom II 'JASDF' (#PT30).



That should be followed by the Canadair Sabre Mk 6 'Black Tulip' (#09532), V.S. Spitfire Mk IXc



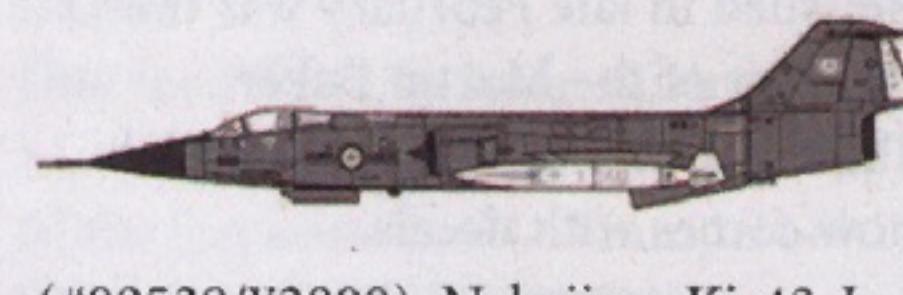
'Clostermann' (#09533), Messerschmitt Bf 109K-4 'Hartmann' (#09534), Douglas A-4E/F Skyhawk 'VC-5' (#09535) and Grumman F6F-5 Hellcat 'USS Santee' (#09536).



New items scheduled for release in Japan during March include the McDD RF-4EJ Phantom 'JASDF 501st Sqn' (#09537/£3400), McDD AV-8B Harrier II 'Desert Harrier'



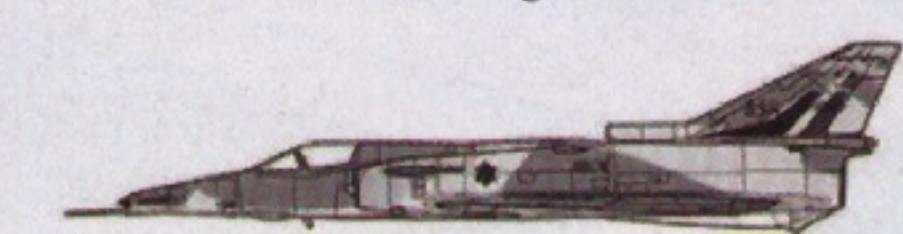
(#09538/£2800), Lockheed CF-104 Starfighter 'Canadian Air Force'



(#09539/£2800), Nakajima Ki-43-I Oscar '11th Flight Regiment'



(#09540/£2400), Republic P-47D Razorback 'The Pied Piper' (#09541/£2400), Hughes 500MD



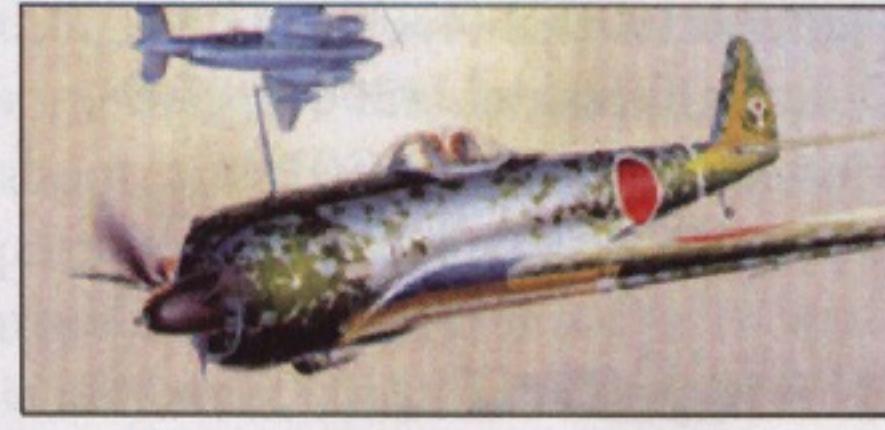
Defender 'IDF' (#09542/£1600) and the Mitsubishi A6M5 Zero Type 52 'Night Fighter' (#09543/£2400).



April releases due in this scale will include the Hawker Hurricane Mk IIc 'North Africa' (#09544), F-16A Fighting Falcon 'Tiger Meet 2003'



(#09545), Junkers Ju-87D Stuka 'Regia Aeronautica' (#09546) and the Grumman F6F-3 Hellcat 'CVG-5' (#09547).



I/32nd

The only item due for release in the UK during March 2004 in this scale will be the Nakajima Ki-43-II Hayabusa '54th Flight Regiment' (#08145).

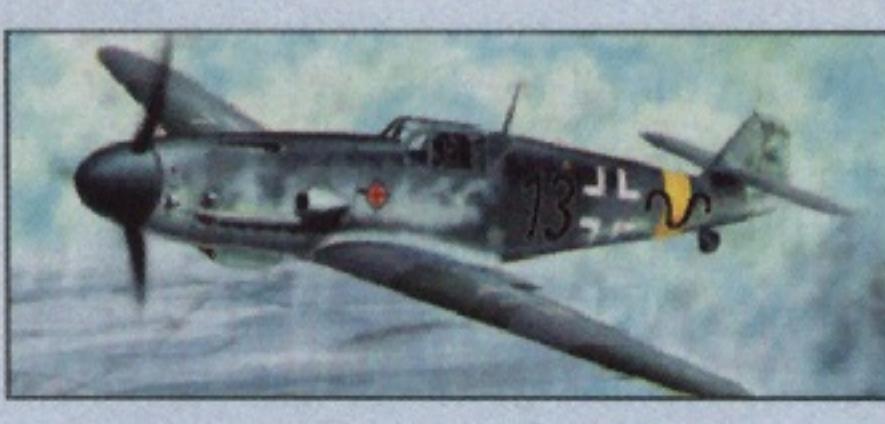


Due for release in Japan during March are the Mitsubishi A6M5c Zero Type 52 Hei '203rd Flying Group' (#08146) and the all-new



tooling of the Focke-Wulf Fw 190A-8 (#ST21/£4200).

winners



'Gustav' Competition

Congratulations to the winners:

1. Mr GK Boyce, Letchworth (Gustav)
2. Mr CA Grimes, Manchester (Felixstowe)
3. Malcolm J Naylor, Warwick (Viking)



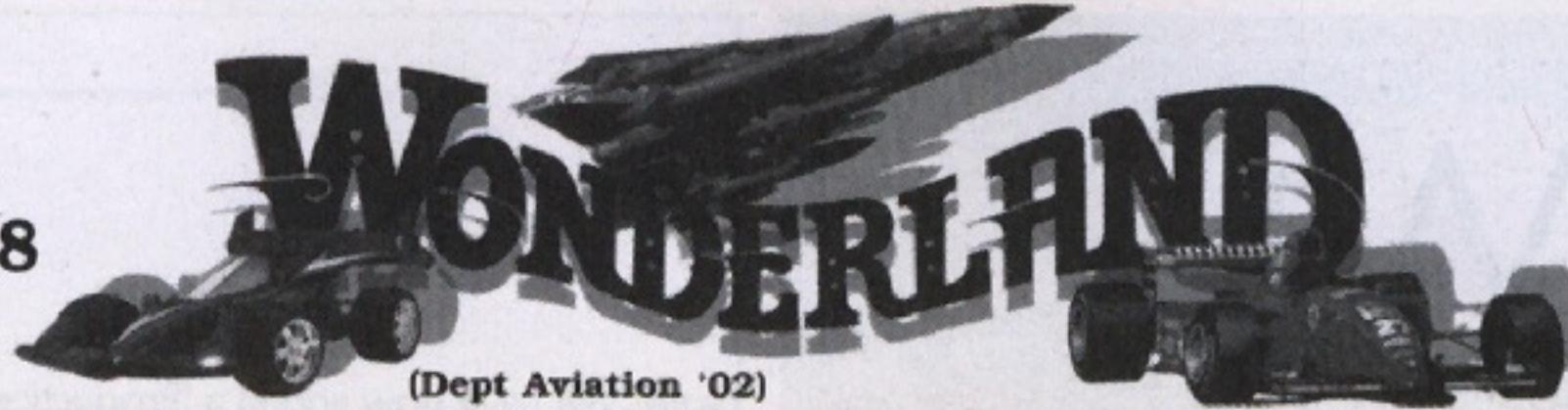
'Wooden Wonder' Competition

Congratulations to the winners:

1. Mr D Barnard, Worksop
2. Mr J Jack, Aldrie



97-101 LOTHIAN ROAD,
EDINBURGH EH3 9AN.
TELEPHONE: 0131-229-6428
FAX: 0131-229-7625



(Dept Aviation '02)

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previews

Note: We have now added a 'Production' status to these previews and all items are mainstream (unlimited) production unless otherwise stated - Ed

LEGATO KITS

Decal for: 



Italian light fighter plane

Nardi FN.305

Scale: 1/72nd
Kit No: LK049
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓

Type: Resin & Vac-formed Clear Plastic
Decal Options: 1
Manufacturer: Legato
Worldwide Distributor: Modelimex



Supermarine Spitfire Prototype

Scale: 1/72nd Kit No: 123 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 2
Manufacturer: Czech Model Resin (CMR)
UK Importer: Hannants

CM8193 - Spitfire prototype K5054
K5054 K5054 K5054 K5054 K5054 K5054



Morane Saulnier Type AI

Scale: 1/72nd Kit No: 112 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin
Decal Options: 2
Manufacturer: Czech Model Resin (CMR)
UK Importer: Hannants

MORANE-SAULNIER AI 1/72

Decal for: 



Baynes Heliplane

Kit No: N/A
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin, White-Metal & Vac-formed Clear Plastic
Decal Options: None
Manufacturer: Lonewulf Models

Klugisho MXY-3 Glider

Kit No: Z02 Price: £TBA
Panel Lines: Recessed ✓
Status: Revised Tooling ✓
Type: Resin
Decal Options: None
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability

Klugisho MXY-3 Glider

Scale 1:72
Cat. No. Z02



Douglas O-38A/B

Scale: 1/72nd Kit No: 72-045
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Etched Brass
Decal Options: 2
Manufacturer: Ardpol
UK Importer: Check Aeroclub for price and availability

Douglas O-38A/B



Curtiss O-1E [South American]

Scale: 1/72nd
Kit No: 72-044
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Etched Brass
Decal Options: 2
Manufacturer: Ardpol
UK Importer: Check Aeroclub for price and availability

Curtiss O-1E South American

Curtiss A-3A

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Savoia-Marchetti SM.93

Scale: 1/72nd
Kit No: LK056
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 1
Manufacturer: Legato
Worldwide Distributor: Modelimex

U.S. ARMY

Douglas O-38A/B



Grumman JRF Goose 'USCG'

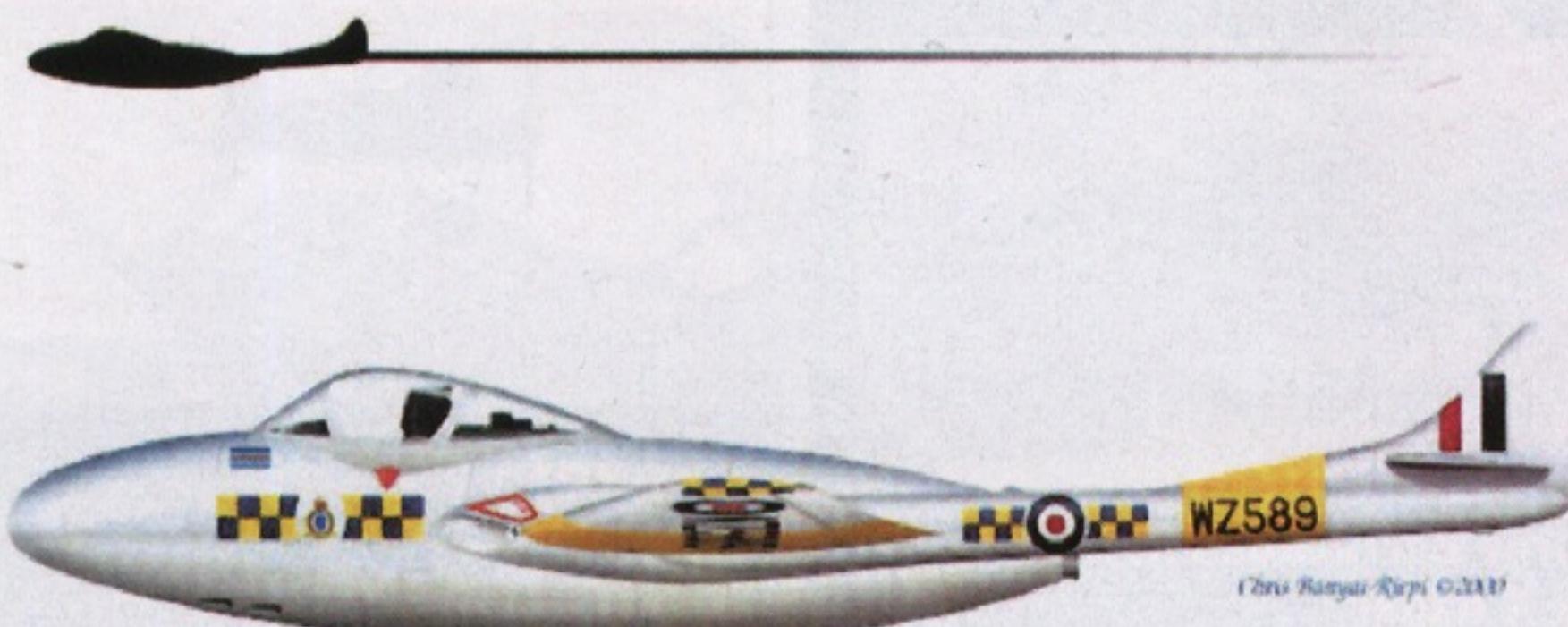
Scale: 1/72nd
Kit No: SW72011SE
Price: £12.99
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Limited-run Injection Moulded Plastic & Resin
Decal Options: 2
Manufacturer: Sword
Sample Supplied by: Brigade Models

Curtiss O-IE [South American]

Scale: 1/72nd
Kit No: 72-044
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Etched Brass
Decal Options: 2
Manufacturer: Ardpol
UK Importer: Check Aeroclub for price and availability

Curtiss A-3A

PRINTED BY TECHNITO



Czech Master Resin 1/72 Scale
No. 116 de Havilland Vampire T.11

De Havilland Vampire T.II

Scale: 1/72nd Kit No: 116
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 5 (RAF, RAAF, Swiss, Austrian & Japanese)
Manufacturer: Czech Model Resin (CMR)
UK Importer: Hannants



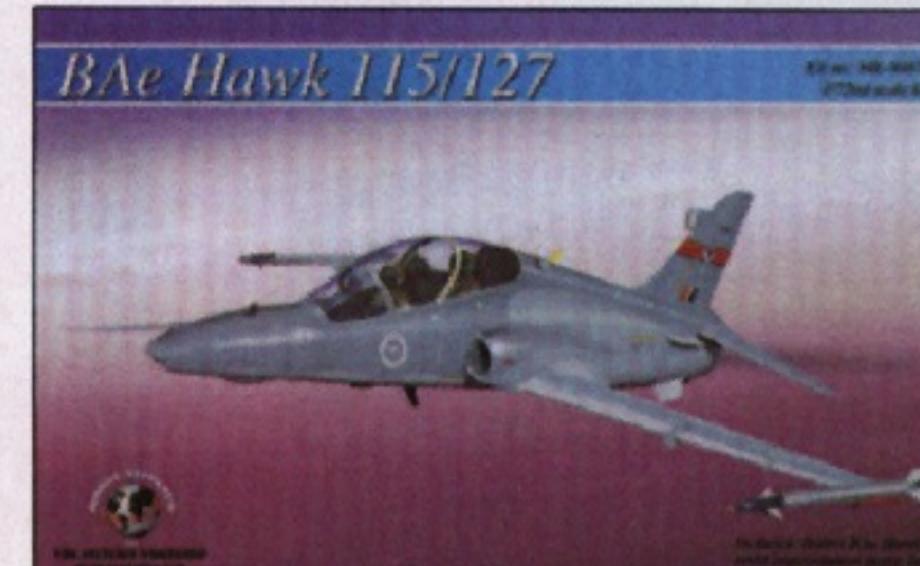
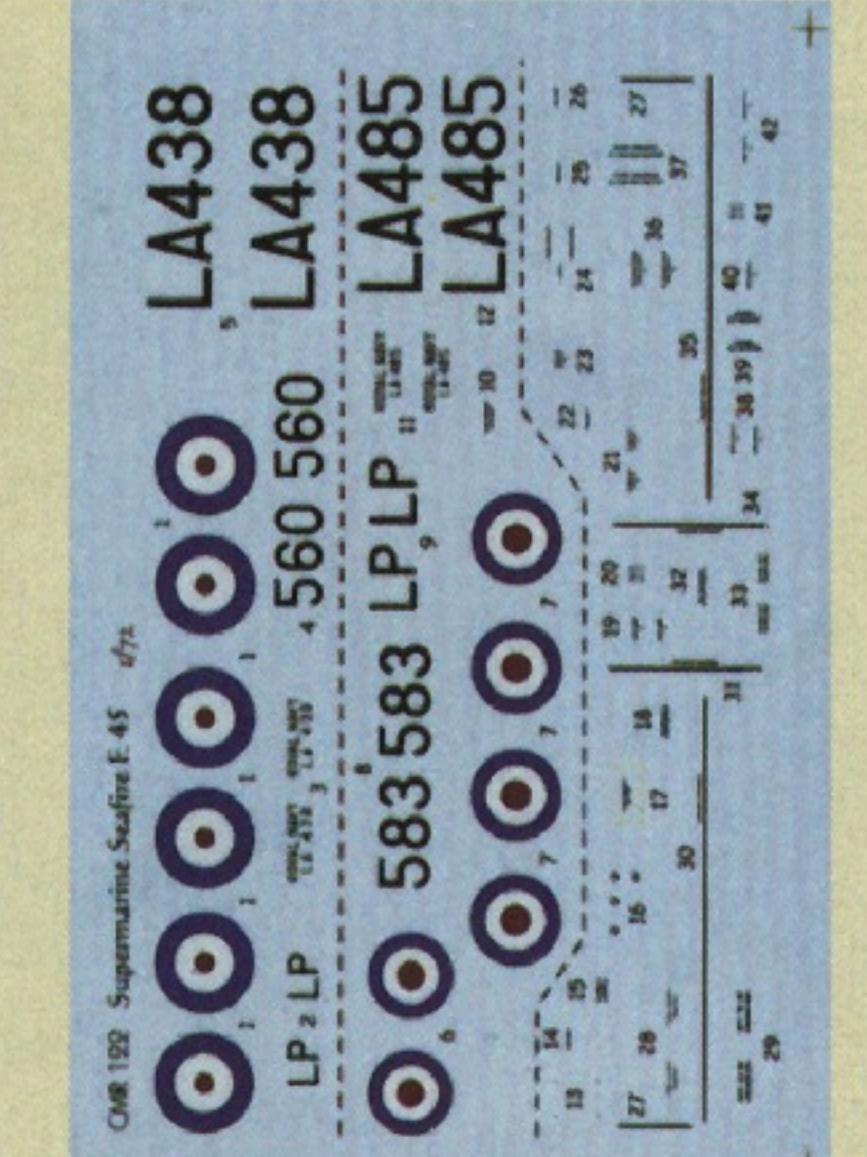
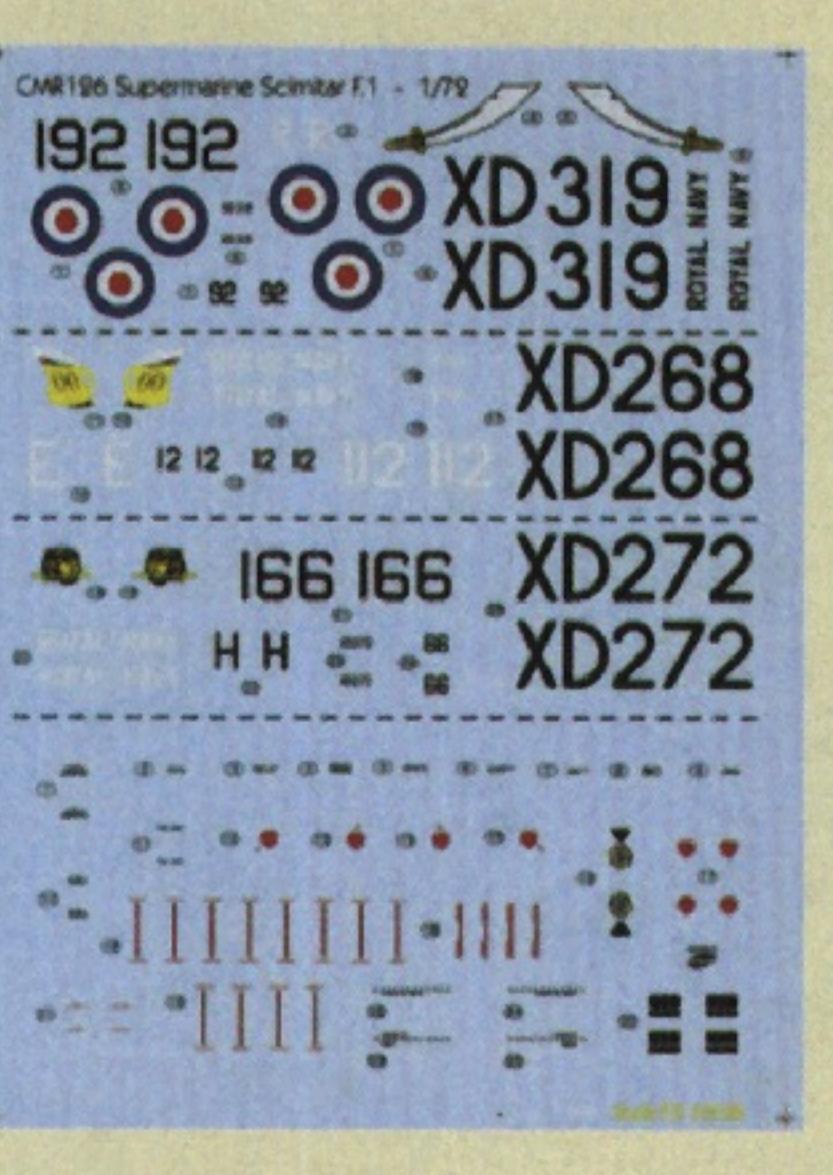
Supermarine Scimitar F.I

Scale: 1/72nd Kit No: 126
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Czech Model Resin (CMR)
UK Importer: Hannants



Supermarine Seafire F.45

Scale: 1/72nd Kit No: 122
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 2
Manufacturer: Czech Model Resin (CMR)
UK Importer: Hannants



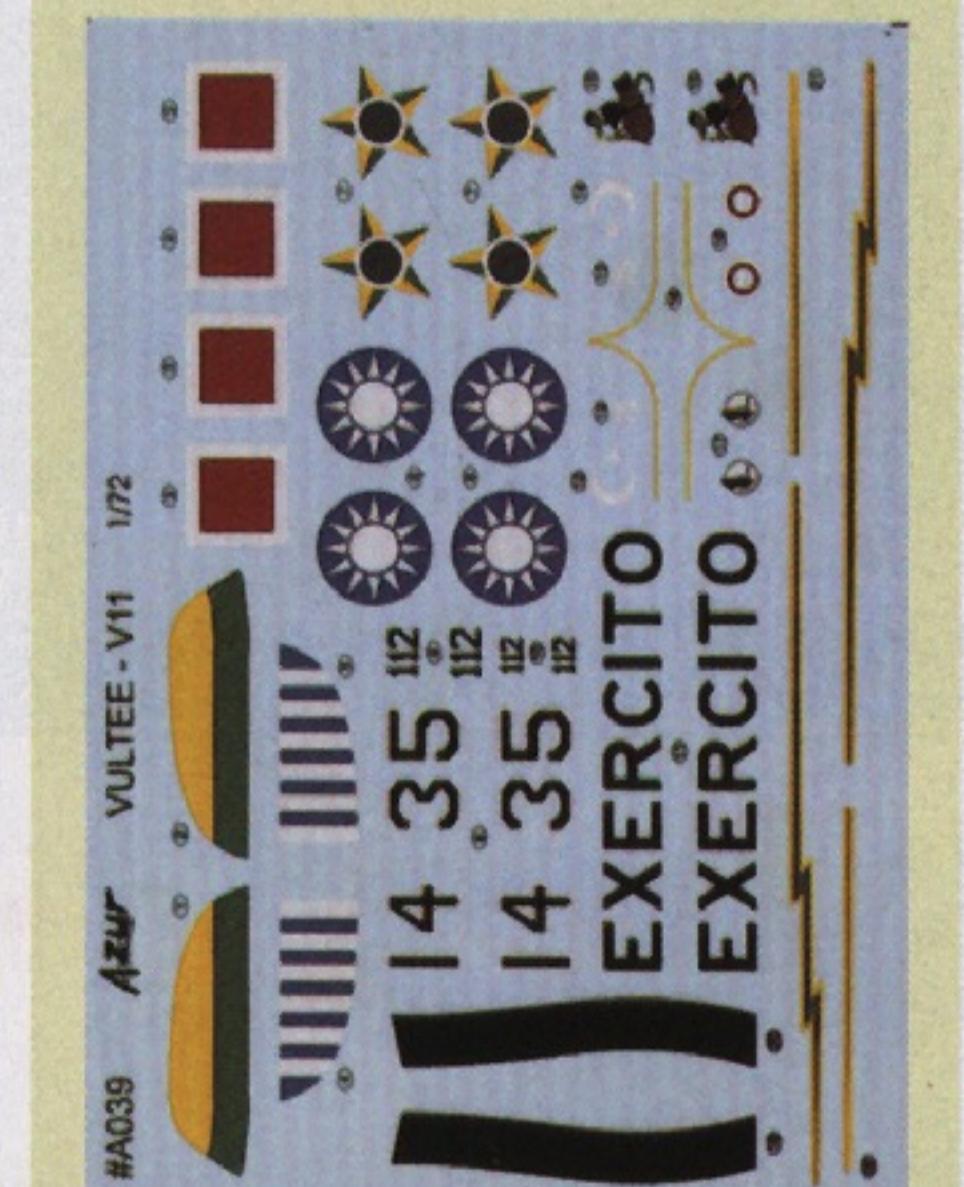
BAe Hawk Mk II5 & II7

Scale: 1/72nd
Kit No: MK-80072.A
Price: £TBA
Origin: Italeri (Italy)
Panel Lines: Recessed ✓
Status: Updated Tooling ✓
Type: Injection Moulded Plastic & Resin
Decal Options: 6
Manufacturer: The Aviation Workshop



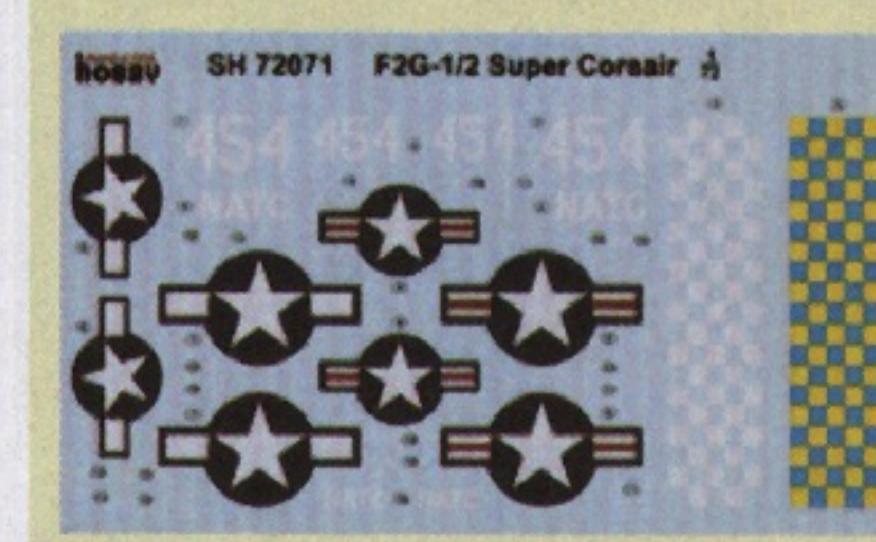
Vultee V-11

Scale: 1/72nd Kit No: A039
Price: £TBA
Panel Lines: Recessed ✓
Status: Revised Tooling ✓
Type: Limited Run Injection Moulded Plastic, Resin & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Special Hobby
UK Importer: Hannants



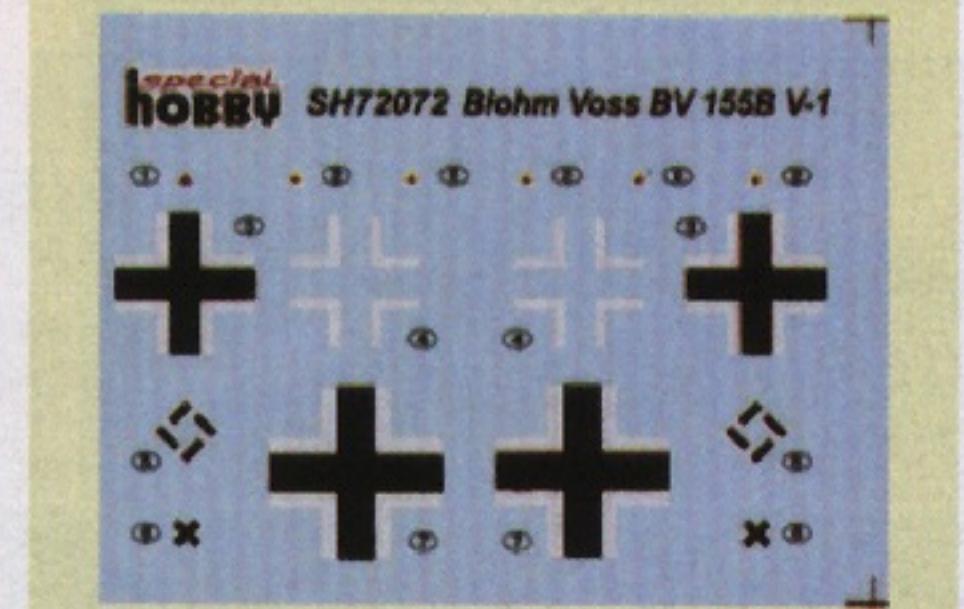
Goodyear F2G-1/2 Super Corsair

Scale: 1/72nd Kit No: SH72071
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Limited Run Injection Moulded Plastic, Etched Brass, Resin & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Special Hobby
UK Importer: Hannants



Blohm & Voss Bv 155B [VI]

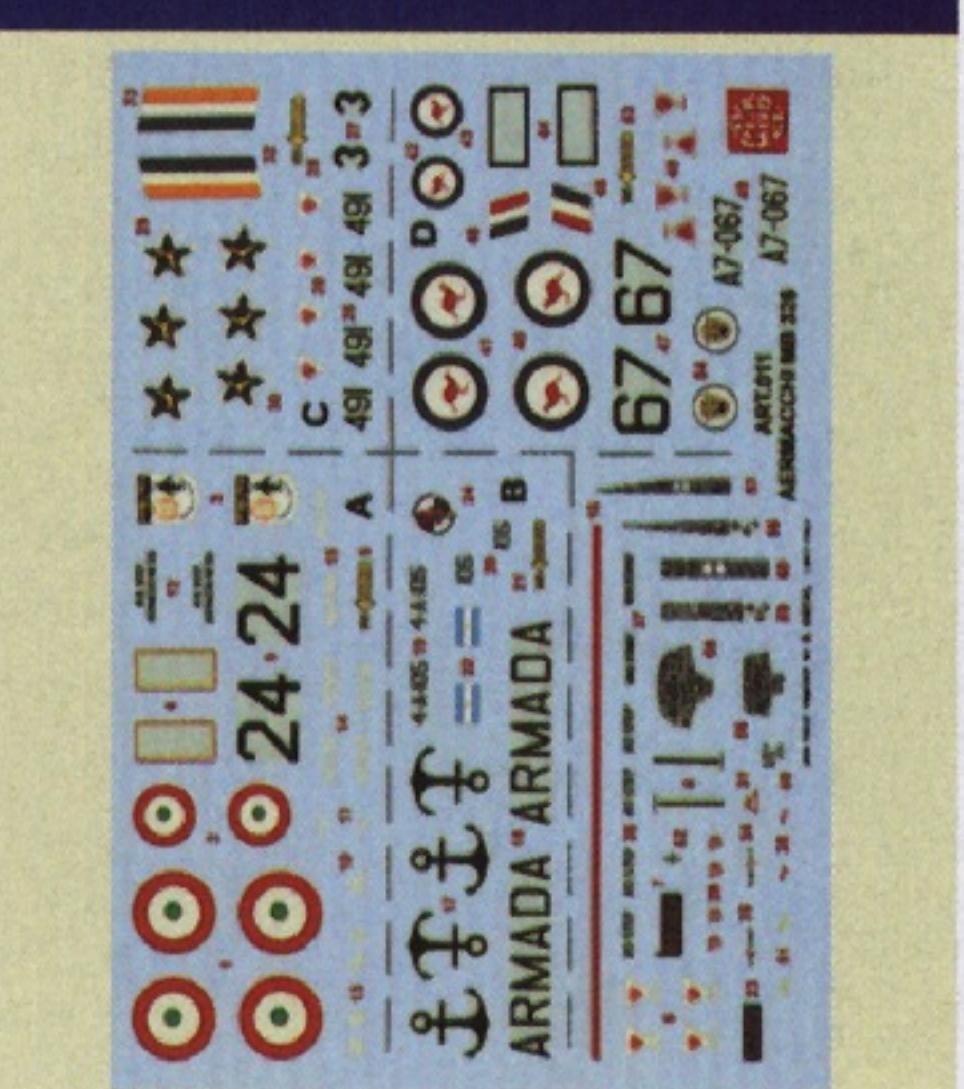
Scale: 1/72nd Kit No: SH72072
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Limited Run Injection Moulded Plastic, Resin & Vac-formed Clear Plastic
Decal Options: 1
Manufacturer: Special Hobby
UK Importer: Hannants



Macchi MB326H

Kit No: MK-72802
1/72nd scale kit

Scale: 1/72nd
Kit No: MK-72802
Price: £16.00
Origin: Supermodel (Italy)
Panel Lines: Raised ✓
Status: Updated Tooling ✓
Type: Injection Moulded Plastic & Resin
Decal Options: 4 (3 are ex-kit options)
Manufacturer: The Aviation Workshop



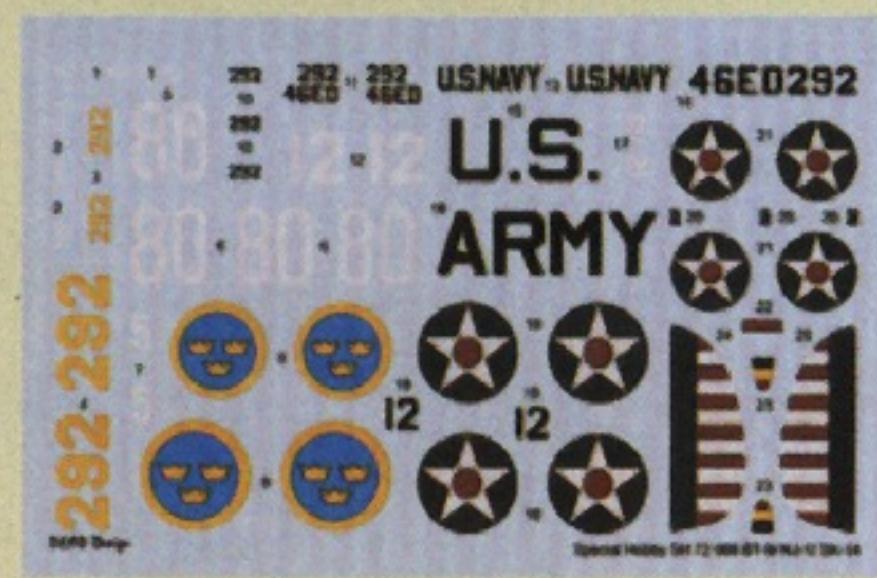
Includes Supermodel Macchi MB326H, Model Alliance decal sheet, resin flaps, and ejector seats

THE AVIATION WORKSHOP
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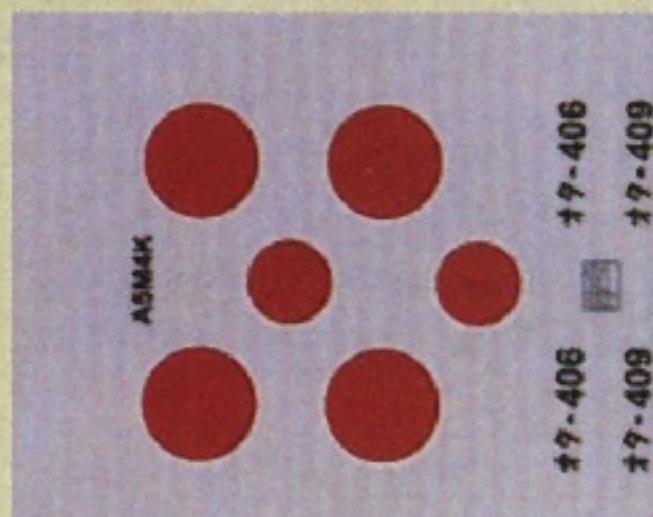
North American BT-9/NJ-1

Scale: 1/72nd Kit No: SH72069
Price: £TBA
Panel Lines: Recessed ✓
Status: Revised Tooling ✓
Type: Limited Run Injection Moulded Plastic, Resin & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Special Hobby
UK Importer: Hannants



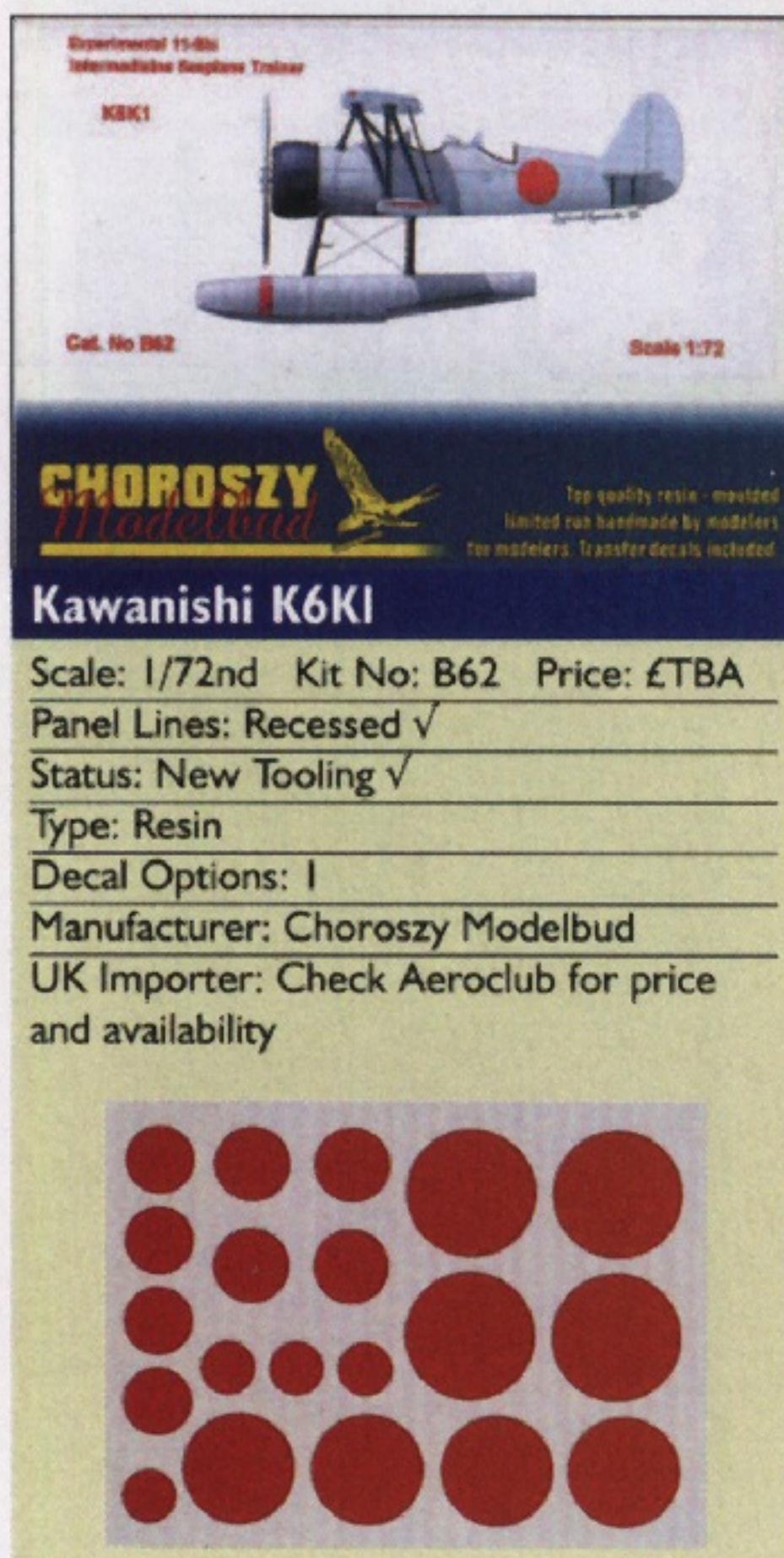
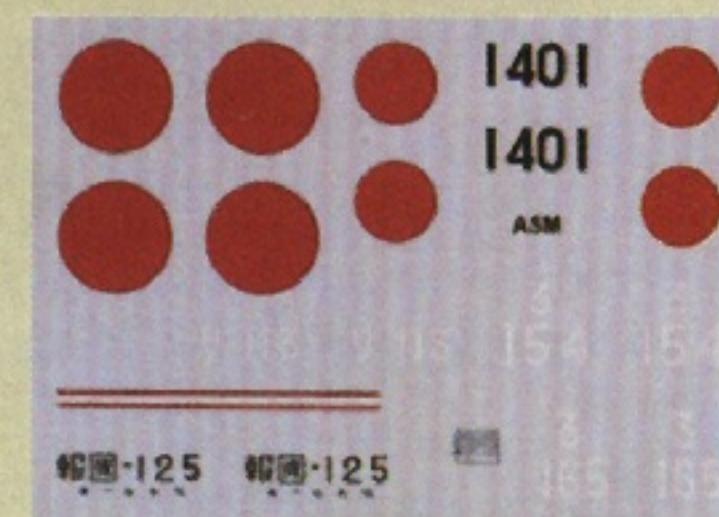
Mitsubishi A5M4-K 'Claude'

Scale: 1/72nd Kit No: A92 Price: £TBA
Panel Lines: Recessed ✓
Status: Revised Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 1
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



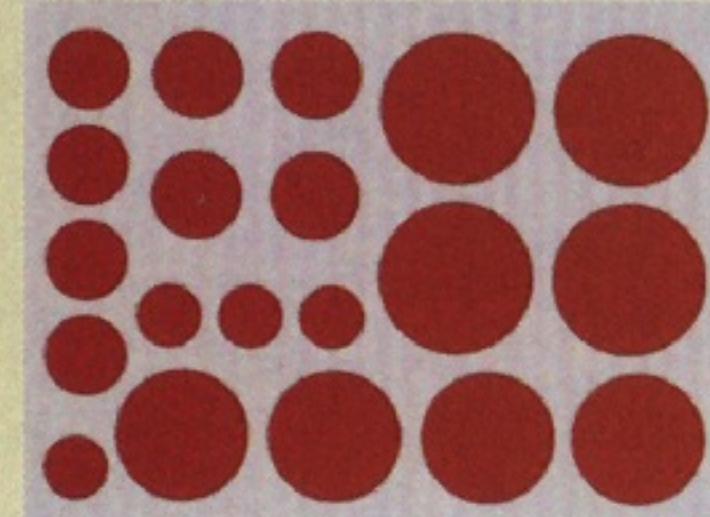
Mitsubishi A5M3 'Claude' Prototype

Scale: 1/72nd Kit No: A93 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 1
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



Kawanishi K6KI

Scale: 1/72nd Kit No: B62 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin
Decal Options: 1
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



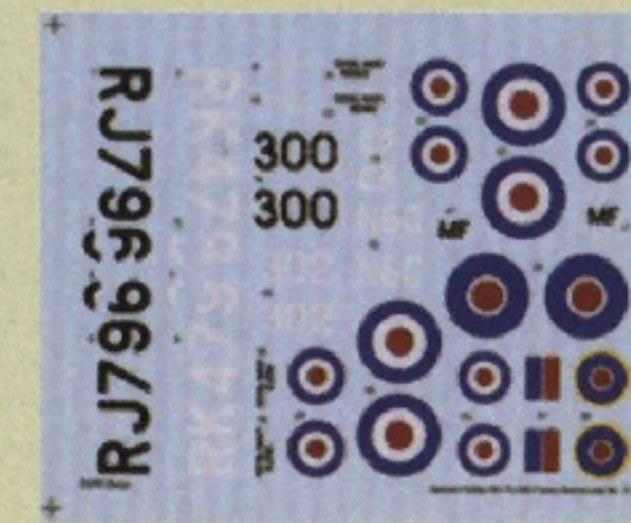
Caproni Ca.100 [Fiat A50 engine]

Scale: 1/72nd Kit No: A89 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin
Decal Options: 2
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



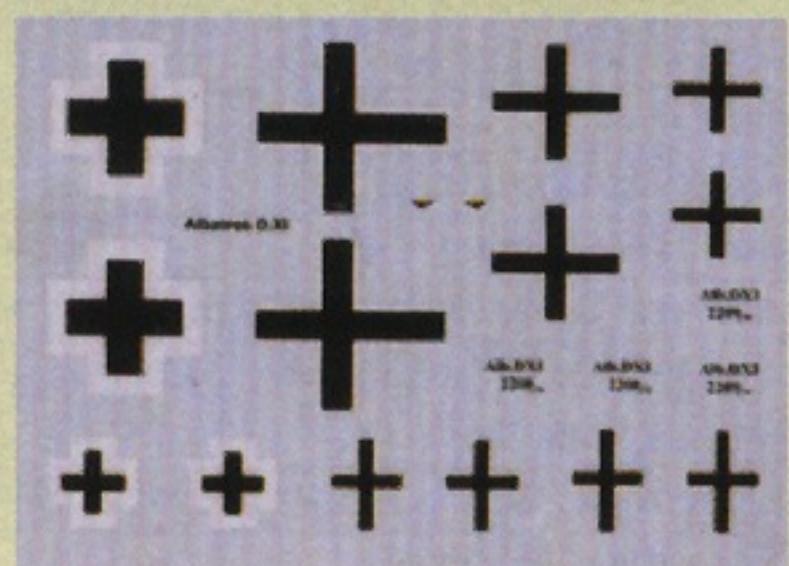
Fairey Barracuda Mk III with ASV Mk X Radar

Scale: 1/72nd Kit No: SH72060 Price: £TBA
Panel Lines: Recessed ✓
Status: Revised Tooling ✓
Type: Limited Run Injection Moulded Plastic & Resin
Decal Options: 3
Manufacturer: Special Hobby
UK Importer: Hannants



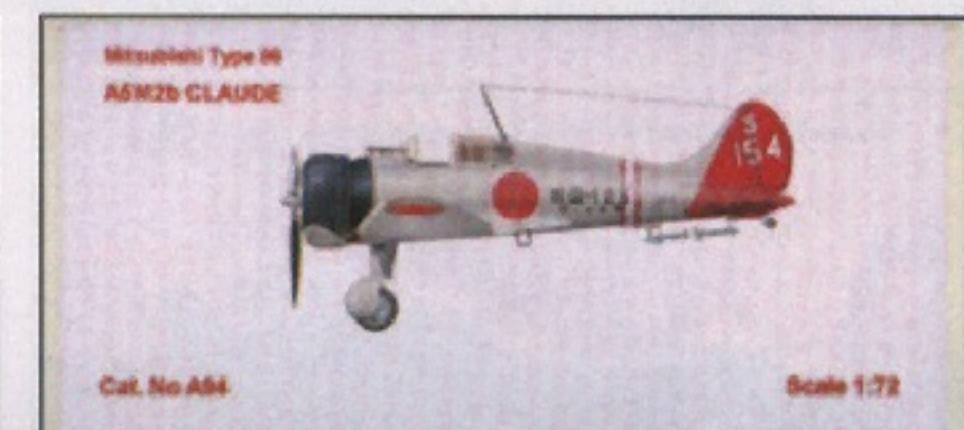
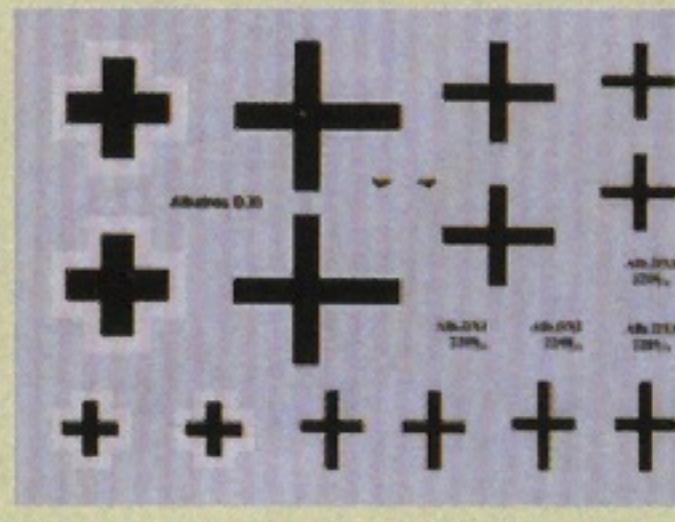
Albatros D.XI S/No. 2208/18

Scale: 1/72nd Kit No: A90 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin Decal Options: 1
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



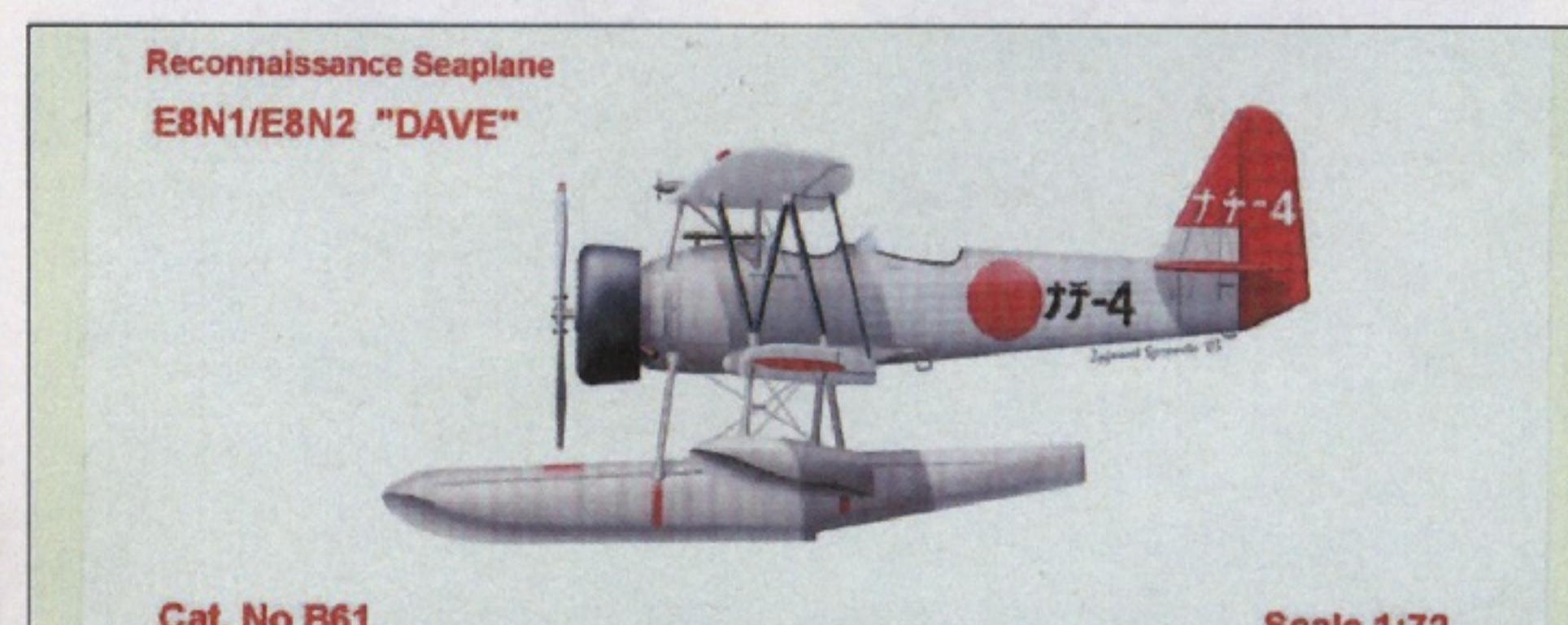
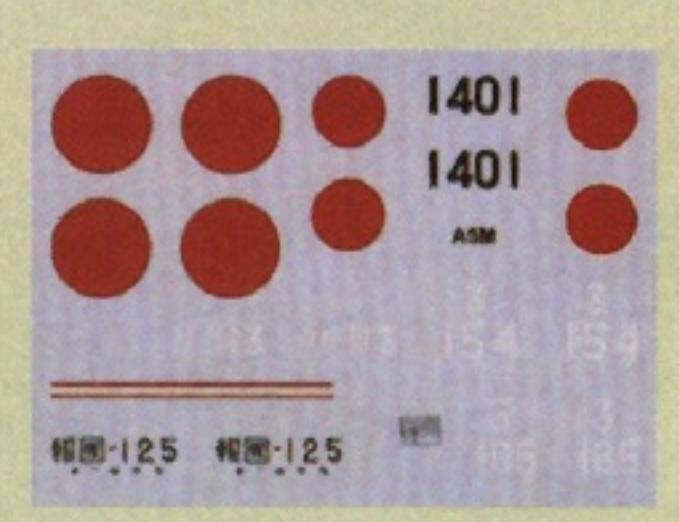
Albatros D.XI

Scale: 1/72nd Kit No: A91 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



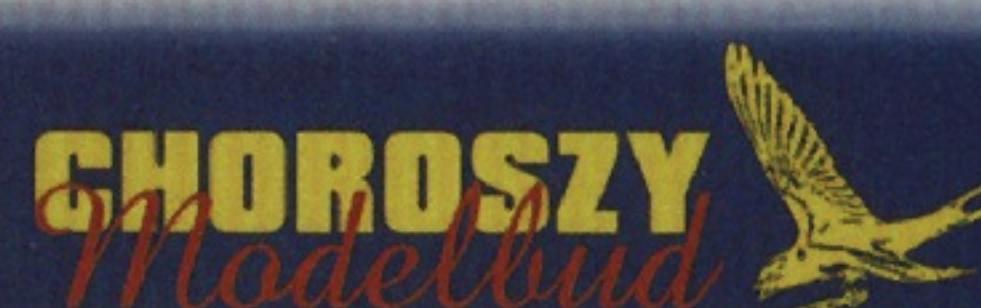
Mitsubishi A5M2b 'Claude'

Scale: 1/72nd Kit No: A94 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



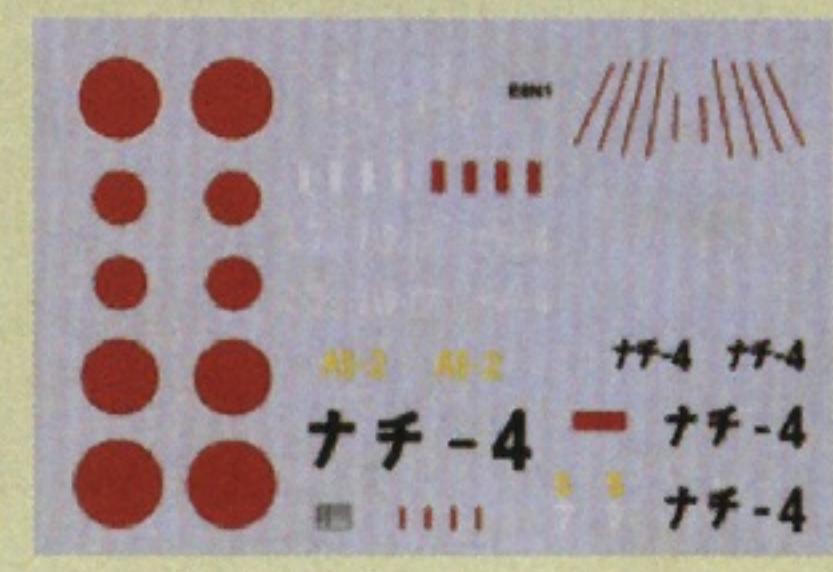
Reconnaissance Seaplane E8N1/E8N2 'DAVE'

Cat. No B61
Scale 1:72

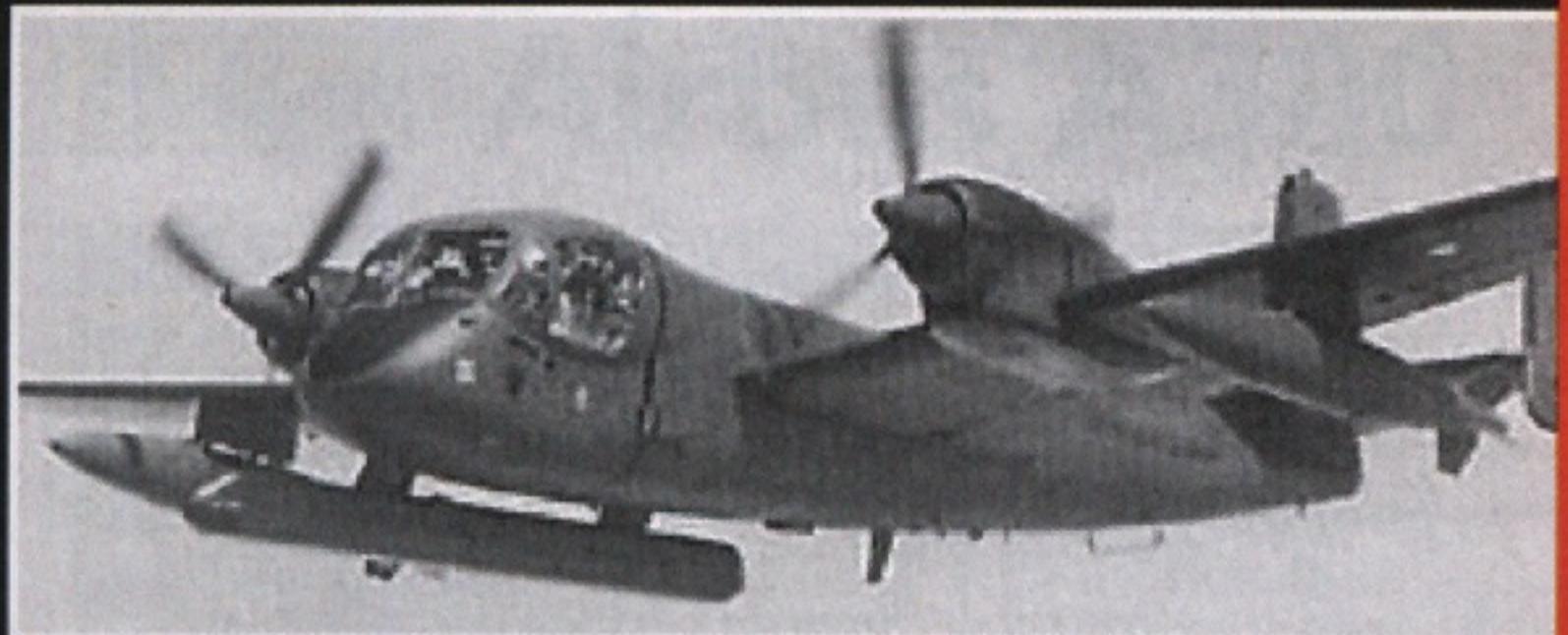


Nakajima E8N1/E8N2 'Dave'

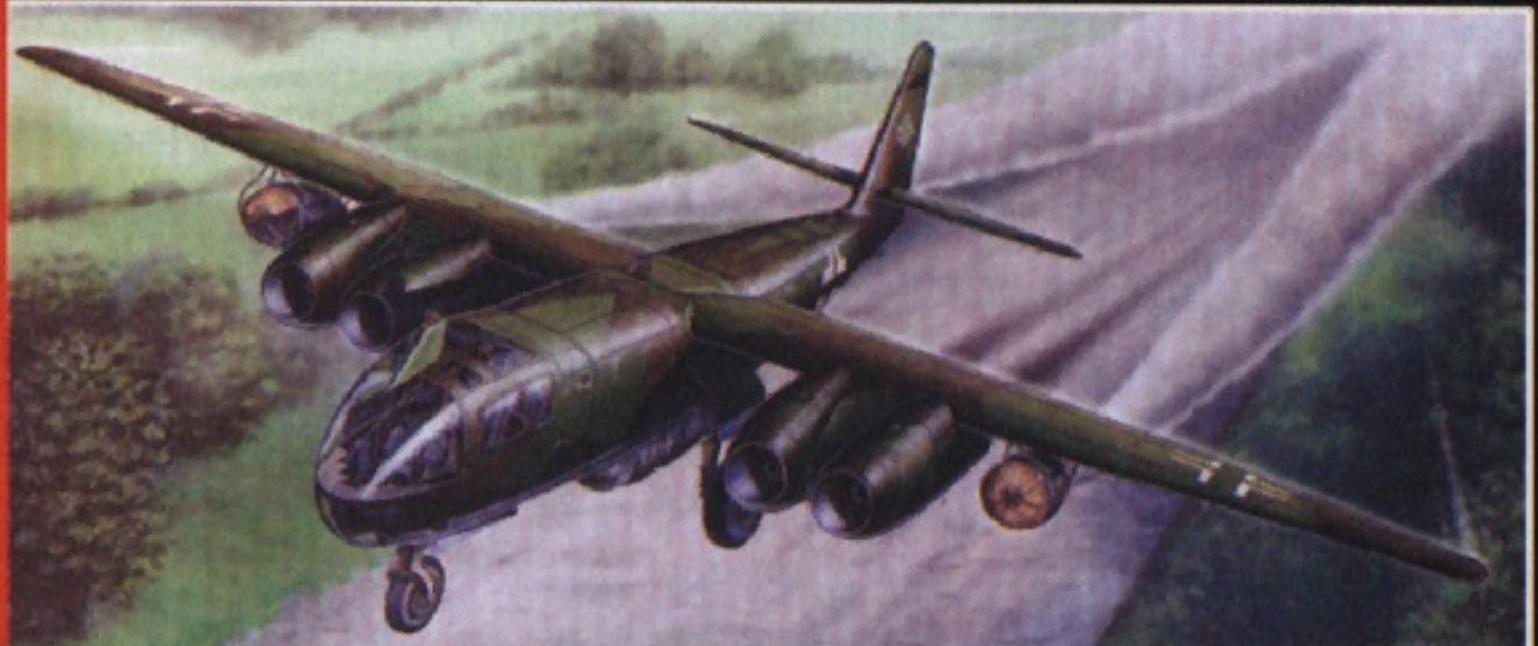
Scale: 1/72nd Kit No: B61 Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Resin
Decal Options: 5
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability



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RM5516 Spitfire Mk I/II \$28.98 \$25.97



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reviews



P.W.S. 10

Technical Data

Scale: 1/72nd
Kit No: 72-040
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Production: Limited
Type: Resin, Etched Brass & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Ardpol
UK Importer: Check Aeroclub from price and availability



P.W.S. - 10

The Kit

I will try and limit the superlatives when reviewing this kit although that might be a challenge. Every time I review a kit by this manufacturer I struggle for words to express my recognition of the efforts that they have made to produce kits of this high standard. For example in 1/72nd scale this kit has hollow exhausts and sublimely detailed cowling.

The kit comes in a box with a beautiful colour profile on top, which illustrates the most striking decal option from the Spanish Civil War. Inside the box are resin and photo etched parts of the very highest standards. This is the sort of kit that makes you shelve all of your current projects to start it straight away.

Instructions

Like the rest of the kit the instructions show improvements over previous Ardpol kits. There are three double-sided A4 sheets detailing a brief history of the aircraft, along with exploded construction diagrams, line drawings, and painting instructions.

Construction

I will start with my only criticism of the kit which is that there is a photo-etched cockpit fret with a WWI style interior. Firstly it doesn't fit onto the resin floor provided, and secondly the interior of the fuselage halves provide a more scale appearance, the rest of the cockpit is finely detailed with controls and photo-etched belts and instrument panel.

There is no interior colour mentioned in the plans so I chose



light grey, which would complement the finished model and also lends itself to light oil washes and dry brushing.

The fuselage halves mated perfectly and required minimal filling. The fin appears to have been moulded to sit proud of the tail, although it was difficult to ascertain if this was correct, but I installed it like that anyway. The one minor problem with kits of this nature is that the parts are not numbered so the builder has to use judgment and the drawings to identify the cabane struts, undercarriage, and tail struts etc.

The construction fell together very well and there is not really much to add, so I will now focus on the painting.

Painting

For our 15th wedding anniversary my wife treated me (or should I say herself) to a new silent compressor, and I was anxious to try it out.

There are three schemes to choose from: one Polish, and two Spanish Civil War schemes.

There is no unit information although the Polish one has very specific unit markings.

It was very difficult to choose which to do; the Polish aircraft was olive green overall but had stunning red and white national and squadron markings.

Of the two Spanish aircraft one had a three-colour camouflage, the other one had a two-colour scheme, but unusual large white crosses on the wings and personal markings down the side, it was this last scheme that I chose. I popped down to my local model shop in Ramsgate and bought a handful of Humbrol tins of various brown and sand colours. The instructions weren't specific so I went on the good ol' Internet for some more references. I struggled to find more than a couple of blurred photos and one colour profile, but luckily these showed the aircraft that I had chosen to do, but unfortunately they also contradicted the instructions showing the aircraft as green and brown camouflage, with a white spinner, so I hedged my bets and used the best of both worlds. The photos also showed the white area on the tail as the rudder and part of the fin too; the kit's instructions didn't show this but the decals were correct.

Most of the plane was airbrushed as sub-assemblies, and over-shaded with toned down camouflage colours, and my latest discovery, Tamiya Smoke, which is ideal for the white areas. I also used Burnt Umber water colours to age the surfaces. The various parts were then glossed ready for the application of the decals

Decals

The decals are fabulous being thin, densely coloured, and perfectly registered, and they adhered perfectly. The Polish squadron markings were particularly noteworthy, and I am more than tempted to buy two more kits so that I can complete all of the versions.

Decal Rating = 10/10.

Finishing

After the decals had dried a coat of Humbrol Matt Cote was applied and the fuselage and wings were assembled. It would have been difficult to paint the plane with the wings and wheels in place. Superglue was used throughout in the construction and the final touch of the windshield finished the model off.

Accuracy

The model measured accurately in accordance with the published dimensions but the wing tips were slightly too rounded.

Conclusion/Recommendation

Stunning, beautiful, brilliant, wow, what more can I say!

My thanks go to Ardpol for the review sample.

Jon Welch



Heller Airbus A380

Technical Data

Scale: 1/800th
Kit No: 71221
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic
Also Includes: 2x Tins of Paint, tube of Cement & Paint Brush
Decal Options: 1
Manufacturer: Heller
UK Importer: Humbrol Ltd
Note: This kit is also available w/o the paint etc (#79844)



The Kit

The box is one of the end-opening variety. Peering into box you see three compartments separated by cardboard. One contains the model and instructions. Another contains the paint, glue and paintbrush. The third is empty. The model occupies one tiny sprue, sealed in a flat plastic bag. The sprue is so small I reckon you can fit at least five in the space occupied by the one, and that includes the plastic bag they come in.



The tiny model has reasonably fine engraved panel lines, which are completely out of scale, and largely unnecessary on the fuselage as they will get covered in decals. The trailing edges on the wings and tailplane are commendably thin. There are no transparencies. There is a small decal sheet. It comes with a stand, as there is no undercarriage. Part count, including stand, is 14. The soft plastic is white, I assume to minimise painting.

All in all, it's nicely moulded, with little sign of flash or ejector pin marks. There are some quite noticeable sink marks on the jet engine pylons. These get hidden by the cowls, so don't fill them.

Instructions

These cover two sides of a large piece of paper. There isn't much to this kit, and the instructions try hard, offering an exploded diagram of the construction sequence.



Construction

No cockpit! Two fuselage parts cut out and glued together. Single-piece wing cut out, and glued into place. Noticed I should have read instructions, and inserted tailplane before gluing fuselage halves together. Light entertainment in prising fuselage halves apart to insert tailplane. Wandered off to allow polystyrene cement to dry. When dry, I had even more entertainment sanding fuselage seam line smooth as I hadn't aligned the parts properly. Similarly, the seam where the wing is attached to the fuselage suffered in my dismantling of the aircraft so time was spent attempting to sand this smooth as well. Much of this sanding could have been avoided, if I had correctly inserted the tailplane and carefully aligned the part. Note there are no location pins. Fit of parts is reasonably good.

The engines are each made up of two parts: A tiny, tiny nacelle or cowl (in which is embedded the fan), and a tiny, thin, pylon. Both call for precise, delicate painting.

I'm afraid the model languished for about five weeks, partly due to my trying to drum up the enthusiasm to complete it, and partly as I was working on other more challenging review models. A determined thrust to complete this model saw the fuselage/wings receiving a coat of Halfords Grey Primer, and the nacelles/pylons a coat of Halfords Appliance White. Because of its diminutive dimensions, it took a full hour to mask off the tailplane and wing, before the fuselage and exposed parts of the wing were sprayed Halfords Appliance White.

When dry, on went the decals. After painting the nacelles and pylons, each was joined to its respectively other, and the four assemblies then glued to the wing, with good fit and little drama.

Colour Options

Just one: white with light grey wings and tailplane, and Ghost Grey highlights. I'm afraid my light grey was Halfords Grey Primer, which I believe is a dead ringer for Ocean Grey. It looked about right when compared to various computer generated images I found on the Airbus Industries site. I ignored the kit instructions and elected to paint the fans and lips of the nacelles Mithril Silver – it being fairly

close to aluminium. I did pick out the top of the pylons with grey, as per the kit instructions.

Decals

Just one option, the A380 multi-colour scheme displayed on mock-ups and various web sites. The decals are thin, can be handled reasonably roughly, and conform well to the airframe. There are only seven of them. Four pieces make up the multi-coloured decoration on the tail and rear fuselage. Fit of these is good, if not perfect. Running along the length of both sides of the fuselage are two pieces printed with windows and doors. Finally there is the piece containing the cockpit window. Oh, there is one final decal, the largest one, which goes on the model stand. Decal Rating = 8/10.

Accuracy

Who knows? It's on the drawing board, or computer as I should say in this day and age. I climbed onto the Airbus Industries web site, and elicited the following measurements of the proposed A380: length 73m (239.25ft), wing span 79.8m (261.8ft). This gives scale dimensions of 91.25mm and 99.75mm respectively. Wielding my trusty ruler, I measured the wee beastie as best I could, ever mindful that 1mm error at this scale is 800mm in real life. I get just over or about 91mm for its length, and 99.5mm or thereabouts for its wing span. Pretty impressive for a 1/800th scale model. Wait though, there's more. Comparing it against some three-view plan and elevation drawings show that it is surprisingly accurate. I noticed this was particularly true of the wing plan and elevation. The nose area looks a little odd, though this might be my fault.

Conclusion/Recommendation

I am at a complete loss. What on earth were the marketing department of Heller thinking off or imbibing when they thought this one up? I reckon the paint, paintbrush and box cost more than the kit, and by a large margin I'd say. The kit probably suffered from agoraphobia when it was in its box, as the box is so large in relation to the kit. And 1/800th scale, why? That I know of there is only one, small range of ships that are moulded in this scale. If they had made it 1/700th scale, it could at least be compared against the vast number of ships and accessories that are produced in this scale (Probably Heller had other considerations in moulding this kit this small, maybe there are other marketing requirements for it, e.g. give-away promo items from Airbus etc? - Ed).

This is most definitely not for children, even when built. An inexperienced builder might get frustrated or daunted by attempting to paint the tiny nacelles and pylons. I can't see an experienced modeller being interested in this kit, unless they really, really, really want an Airbus 380 and just can't wait for such a kit to come out in one of the more recognised scales. It's a shame, as the model is well engineered, with lovely thin trailing edges, and it does conform very well to plan and elevation engineering drawings!

Question is: Do I put it in my display cabinet or should I use it as a modern Christmas tree ornament, or both?

My thanks to Heller for the review sample.

Angus McDonald



Technical Data

Scale: 1/72nd
Kit No: A82
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Production: Limited
Type: Resin & Vac-formed Clear Plastic
Decal Options: 1
Manufacturer: Choroszy Modelbud
UK Importer: Check Aeroclub for price and availability

**The Kit**

The PZL 45 Sokol is the latest addition to Choroszy group 'A' range of resin kits. It follows Choroszy tradition of producing rare and little known aircraft, in this case a Polish prototype from 1939, which never went past the study stage owing to the outbreak of the war.

The kit comes in a lightweight cardboard box printed in blue and yellow, with a colour profile of the subject matter, pasted on the lid top. Inside there are five poly snap-tight bags containing: the cream coloured resin parts and the vac-formed canopy, coming complete with a spare. A lot of attention is given to the cockpit and engine areas and to complement this, fine engraved lines cover the fuselage and wing surfaces. Owing to the process of manufacturing resin parts, there are various moulding defects but all of a minor nature. Also included are the instructions and the decal sheet.

Instructions

Two double-sided A4 sheets, folded to A5 to fit into the box, constitute the instructions. Technical data is followed by exploded assembly views to aid construction and full size plans are supplied. The only weak point is the painting instructions, with no manufacturing paint codes and with colours just given in general terms, i.e. 'green'. But modelling would not be modelling without a bit of research.

Construction

As with most aircraft, construction starts with the cockpit, but before I can commence, all the parts must be washed to remove any residue left over from the moulding process.

The fuselage halves are also in need of some attention, they have moulding blocks at each end and the lower edges are slightly rough in places. All this was easily addressed using a razor saw and finishing off with wet and dry on a flat bed, to obtain a good mating surface.



Unfortunately, this resulted in my removing the locating pins, which Choroszy had so kindly molded into the fuselage halves.

There are seven pieces altogether that make up the cockpit, a rear frame which I attached to one side of the fuselage, the instrument panel that has recessed dials, rudder pedals, control column and the seat, made up of two pieces but no seat belts. These were easily assembled onto the floor using cyanoacrylate.

Interior painting information is scant to the point of being non-existent, so I had to use artistic licence. I painted the interior in natural metal, with dark red brown cushion seat, and the instrument panel, in very dark grey with black dials, with the side wall ribs, given dark washes and highlights. Once I was happy with all this, I then joined the fuselage halves together, with the floor attached to one side. I accomplished this in 3 stages. First I joined the front bulkhead. Once this was secure, the lower joint and tail were fixed, then finally the top section. I found this eased the lining up of joints, without getting super glue all over the place.

The main wing come as one unit, complete with the wing fillets, making the building of this model so simple. Only some sanding to the front leading edge to smooth out a little roughness from the moulding process was required. I found the fit was tight against the fuselage sides, therefore giving excellent, sharply defined edges to the fillets. For attaching this wing to the fuselage I used two-part epoxy, thus allowing me that extra time to square up the wings with the tail.

The spats came next, which come in two halves, with pins moulded inside to act as axles for the wheels. I removed these, electing to add the wheels later after painting. To give a positive aid to their location, there are dimples in wings and pins in the top of the spats. This is not the case with the tailplanes, where care is needed to get correct positioning. It was at this point I found an error in the plans. I had two pieces, which looked like they could be struts but with no place to go. On fitting the tailplanes I noticed a small indentation. In fact I must own up to

filling one in, thinking it was an air bubble mark. It was only on fitting the second tailplane that I realised this aircraft must have tailplane struts, which are not shown on the plans. They are also far too long, so are in need of trimming. To get a good fit with these, I cut a groove into the fuselage and placed them into it and used filler to blend the fuselage back into shape. This was the only filler I used.

With the major fuselage work completed, it was time to move to the front end. The cowling I found was almost paper thin, with a large casting block on the front end, and my sample had a small hole in it. This certainly looked like trouble! A visit to the garage produced a length of doweling which fortunately fitted inside the cowling perfectly. What luck! I can now hold it without any fear of it breaking under any pressure, while I razor saw the casting block off. Once I had removed this, it was just a matter of sanding down, and filling the hole with superglue gel. The small engine came in three parts and is well detailed and careful painting brings out its best qualities. All that remains now for the front end is the fitting of an air intake, which sits under the cowling. I attached this to the fuselage so in this way it will act as a support for the cowling on the final assembly after painting.

Now I had an aeroplane in front of me, but I still had to tackle that vac-formed canopy. This proved to be the longest and the most trying part of this construction, where patience is the by-word, such was the ease of the rest of this kit.

Colour Options

There is only one colour scheme given and this is subjective. The PZL 45 was not constructed in time to reach any squadrons before the outbreak of WWII, so you get a colour scheme, which might have been if the aircraft had reached squadron status. This is the standard dark khaki/bottle green over light blue. I used a mix of Humbrol paints to try to simulate this camouflage,

117 US Light Green darkened with 15 Midnight Blue for the top and for the undersides 29 Camouflage Grey with a touch of 109 WWI Blue.

Accuracy

I had no details on this aircraft, so I turned to the Internet for more information. Here I could only find one source of reference. This just confirmed the dimensions given in the technical data, i.e. wing span of 12.14m and length of 7.88m. The finished model measures 168mm wing span with the length at 108mm, therefore making the kit very accurate for this scale.

Decals

This is a small decal sheet giving only one option, but beautifully printed, pin sharp and in perfect register with a glossy finish. In use I found them to be thin with the minimum of carrier film, with the density against the dark background faultless. The blue strip round the rear fuselage presents the only real problem. Printed straight on the decal sheet, it requires cutting two or three times to get it to mould round the fuselage contours satisfactorily, but otherwise an excellent decal sheet.

Decal Rating = 9/10.

Conclusion/Recommendation

A deceptively simple kit to make, making it ideal for a first resin kit for anyone, with some experience in building injection kits. It's an attractive design with an odd tail, that only adds to its charm. If you so wish, the engine has enough detail to be able to display the model without its cowling, further enhancing interest. To those who are looking to move away from the mainstream i.e. Spitfires and Bf 109s, I believe this kit is a good place to look.

Highly recommended for those wanting something a bit different, whilst at the same time increasing their modelling skills.

My thanks to Choroszy for the review sample.

Bryan Wilson



Sopwith Camel 2F.1

8059



8058



СТАЛИСКИЙ МОДЕЛИНГ 1/72

7062

Lavochkin La-7



7063

La-7 /3 guns version

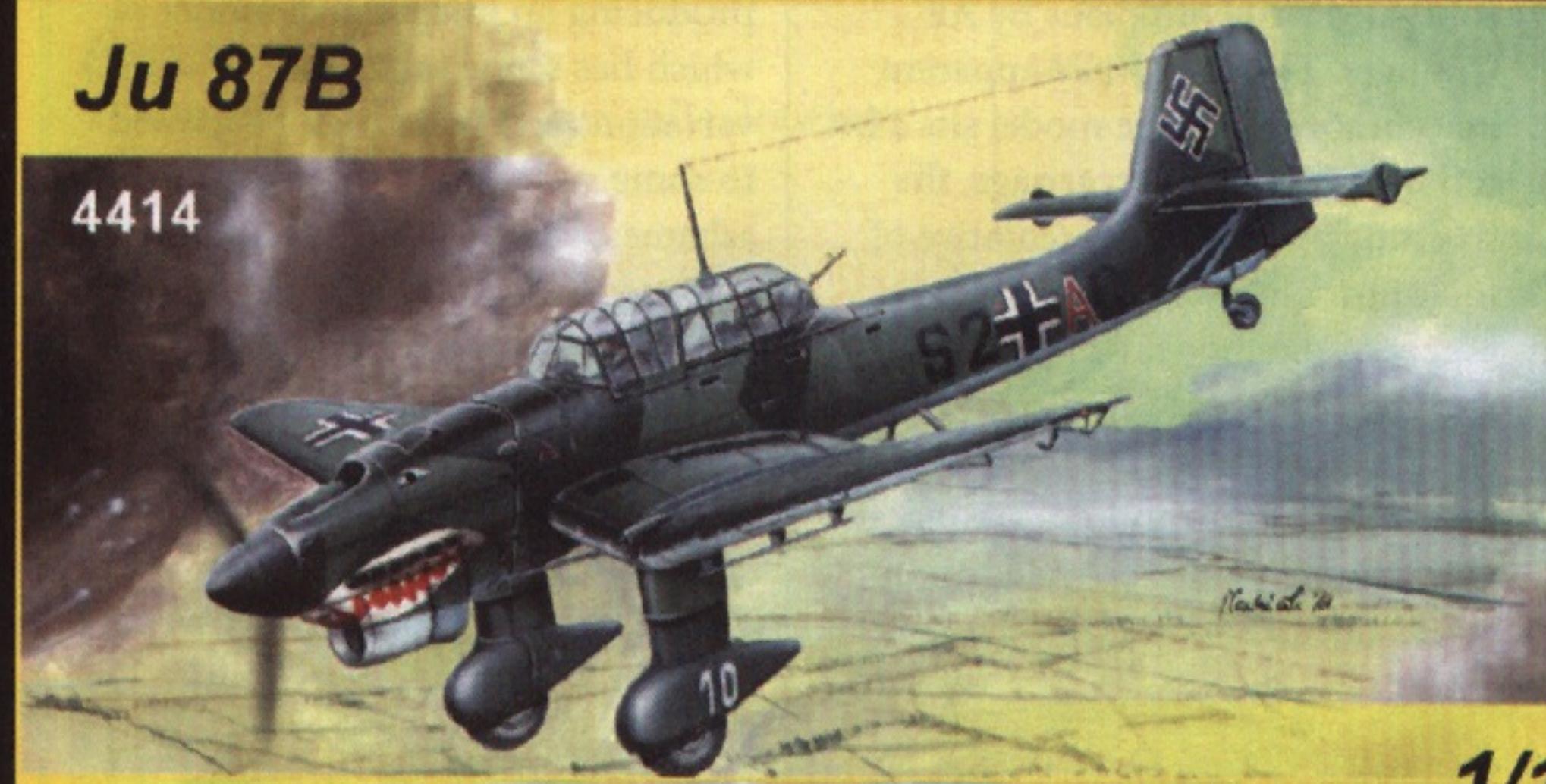


7064



Ju 87B

4414



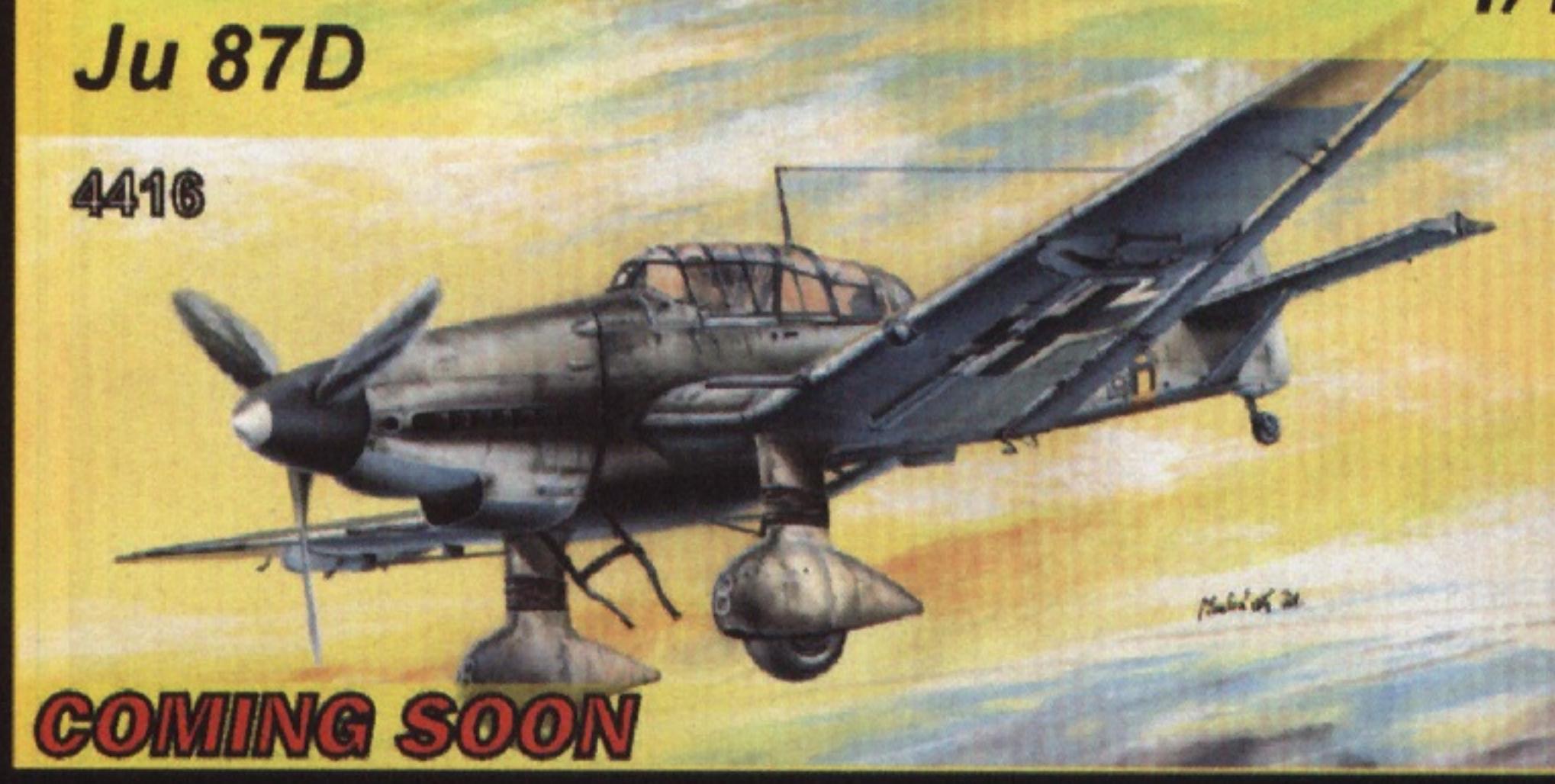
Ju 87R

4415



Ju 87D

4416



Ju 87G

4417



COMING SOON

COMING SOON

Lockheed Vega Model 5/UC-101

Technical Data

Scale: 1/72nd
Kit No: 72522
Price: £10.85
Panel Lines: Recessed ✓
Status: Revised Tooling ✓
Production: Limited
Type: Limited-run Injection Moulded Plastic
Decal Options: 2
Manufacturer: MPM
UK Importer: Hannants

**The Kit**

Consisting of one clear sprue and three of softish grey plastic with no flash, this kit is well up to MPM's high technical standards. Despite being packed in the same bag as the rest of the sprues no scratches were evident on the clear parts which are of good quality, the small cabin windows being particularly thin and clear. The real aircraft was plywood skinned and this is accurately reproduced in the kit's smooth surface finish with no panel lines other than those for the door and escape/access hatches. The interior has a full complement of seats with some detail on the cabin bulkheads and cockpit detail consists of instrument panel, single pilot's seat and control column with representations of the rudder pedals on the front bulkhead.

An optional open cabin door is provided; to fit this the door aperture needs to be carefully opened up.

Several parts remain unused on the sprues giving a hint that other variants will be forthcoming.

Instructions

Eight A5 sides provide a brief history of the type in four languages, a parts diagram, seven clear construction steps and colour scheme diagrams. Paint details are indicated at each stage using names and Humbrol numbers. FS numbers are given for the overall exterior colours. The optional parts for civilian and U.S. Army versions are clearly shown, and include spatted undercarriage, different wheels and air intake.

Construction

Assembly is very straightforward although I had to reduce the width of the main cabin floor, part A5, to allow the fuselage halves to join tightly. The only complicated area is the undercarriage which is spindly and tends to rely on butt joints. Location points are mostly clearly marked with the exception of the joints between the struts and wheel spats which required careful thought

and removal of the pegs from the lower ends of parts A9 and A10 to give a butt joint with the inner side of the wheel fairing. I also drilled small dimples into the fuselage sides to give a stronger location for the pegs on the upper ends of these parts. Finally some trimming of the ends of parts A20 gave a more positive contact with fuselage and spats. I suspect that these niggles arose because I built the spatted undercarriage version; it may be that the unspatted Army version fits better.

The wings consist of full-span upper and lower halves so no dihedral worries here. They needed minor trimming on either side of the canopy before they would sit neatly on top of the fuselage and the canopy itself needed its lower edge trimming by the thickness of the frame to ensure a good fit. Don't leave the canopy off until after painting as it will be impossible to squeeze it between wing and fuselage!

All three tail surfaces are butt jointed to the fuselage and require careful cleaning up of the faint mould lines to give the maximum area for gluing.

Colour Options

The two colour schemes couldn't be more different! The first is for an eye-catching machine of Shell Aviation in overall yellow with red lining and registrations whilst the second represents what I believe was the only aircraft of this type impressed into the US Army and

carries standard Olive Drab & Neutral Grey camouflage. I disagree with MPM's suggestion of FS 30118 for the upper surface colour as this is a brown shade and I would have expected this aircraft to have been finished in the early war Dark Olive Drab 41 which was a more green colour, for which I tend to use RAF Dark Green with a hint of Dark Earth added to give a brownish tinge. Less than inspired by the military colour scheme I used Humbrol gloss yellow 69 and red 19 for my model of the Shell aircraft.

Accuracy

MPM misquote a length of 8.8 metres in the English part of their instructions but give the correct length of 8.38m in all other languages. The model is 121mm long which scales out to 8.71m so it is somewhat over long. At 174mm (a scale 12.53m) the span is only slightly in excess of the 12.49m of the original. Despite these discrepancies a comparison with photographs shows that the model correctly captures the tubby look of the aircraft and, length apart, the model compares well with plans by Alf Grainger. The only really apparent inaccuracy is that the model sits a bit too high on its undercarriage, the struts being more representative of their in-flight length. One strange aspect of the model which only becomes apparent when applying the cheatline decals for the Shell version is that the cabin windows are placed at fractionally different heights on either side of the fuselage! This

results in the starboard side cheatline being applied slightly lower than it should be on that side. Having pointed this out, it has to be said that this does not detract from the look of the model and it would not be noticeable at all on the military version.

Alf Grainger's plans show that there are a couple of different designs of the tail surfaces and I am not convinced that MPM have got the horizontal surfaces quite right. I have not found a photo which confirms this suspicion though.

Decals

Only one word is necessary - superb. They have a semi-matt finish, are perfect in colour, thin, no excess carrier film, they react well with solvents and they don't silver when used on gloss paint. Their thinness means that you have to take great care with them but they are tough and will allow some repositioning. What more could you ask?

Decal Rating = 10/10.

Conclusion/Recommendation

A novice might struggle a little with the undercarriage but anyone with reasonable skill should enjoy producing a pleasing replica of this aircraft from this kit. The undercarriage length can easily be rectified - the correct height from the ground to the underside of the wing should be about 35mm with the fuselage horizontal.

This is by no means a mainstream subject (how many other 1930s American light aircraft kits can you name?) and as a result I can't imagine it becoming MPM's best-seller, so congratulations to them on producing an imaginative model which has scope for release in several variations and which can be treated to some very attractive colour schemes. Perhaps this is the start of a new trend in modelling, some of those lovely aircraft of the 30s PLEASE!

My thanks to MPM for the review sample.

Ivor Rameden

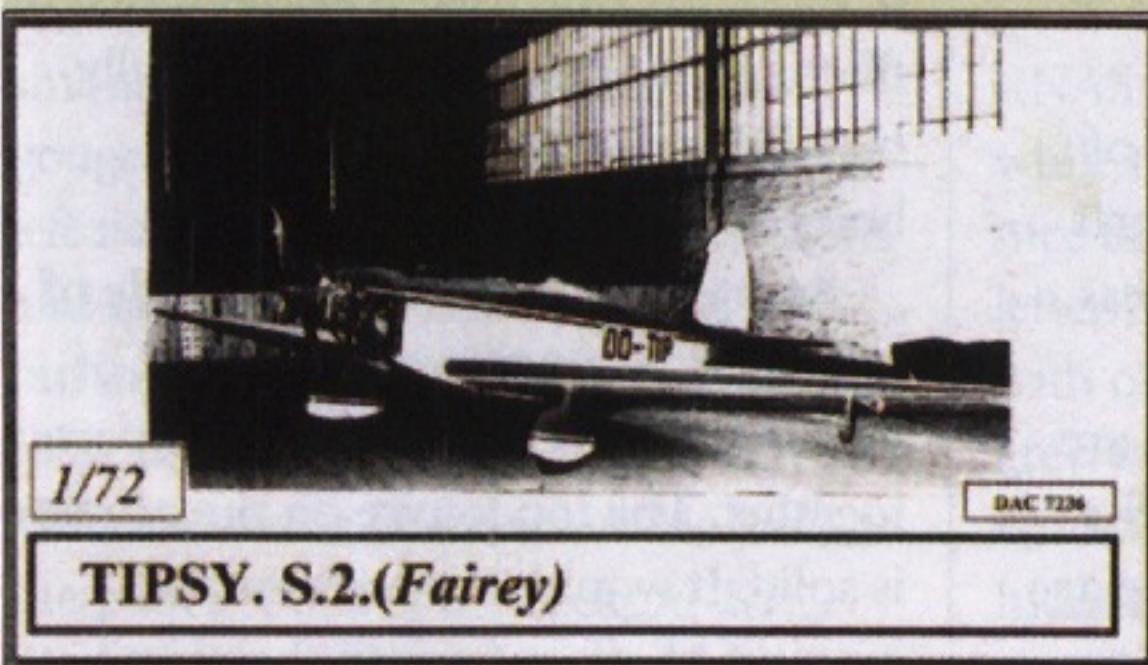


DUJIN

Fairey Tipsy S.2

Technical Data

Scale: 1/72nd
Kit No: DAC 7236
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Production: Limited
Type: Resin & Vac-formed Clear Plastic
Decal Options: 2
Manufacturer: Dujin
UK Importer: Hannants



The Kit

The kit comes in a plastic bag fronted by an A5 tinted photocopy. Inside, another small plastic bag contains the resin parts. There are two fuselage halves, a single-piece wing unit, tailplane and undercarriage legs. A seat and control panel are the cockpit fitments.

The original S.1 design had a two-cylinder, horizontally-opposed Douglas engine. The cylinder heads projected from the aircraft's nose and two such cylinder heads are provided. Some later aircraft had a more conventional Bristol engine, and an alternative nose section is also provided.

Instructions

As usual with Dujin there are no instructions, as such. A single-sided A4 sheet provides a brief type history, in French, and a set of 1/72nd scale drawings with colour scheme details.

Construction

Of all the small Dujin aircraft I have built recently, this one fitted together best. It is a simple build with no real problems.

Accuracy

The model conforms to the scale drawings provided.



Colour Options and Decals

The Tipsy line were a product of Fairey's Belgian operation, Avions Fairey, at Gosselies, near Charleroi. Decals are provided for the first Tipsy to fly from there in 1934, the Belgian registered OO-TIP. This attractive little aircraft was overall white with red upper fuselage, trimmed with a red cheat line. This scheme was reflected on the wheel spats. Leading edges of flying surfaces were also red.

I painted my model Humbrol Matt White (34) overall, then masked the upper fuselage and painted it Humbrol Scarlet (60). The leading edges were done with a broad red felt marker. This worked well and, encouraged, I did the cheat lines with a fine red marker. However disaster struck when I applied a coat of Johnsons Klear. Despite being



described as 'permanent' and 'waterproof', the fine marker lines ran down the fuselage sides, which had to be repainted. Finally, cheat lines cut from solid colour decal sheet were added.

The black code decals are printed on an overall carrier film. They are a bit fuzzy, but perform well in every other respect. Decal Rating = 8/10.

Conclusion/Recommendation

This is a simple build and would be a good introduction to resin kits. Provided you can make a better job of the colour scheme than I did (!), recommended to all.

Many thanks to Dujin for the review sample.

Neil Pinchbeck

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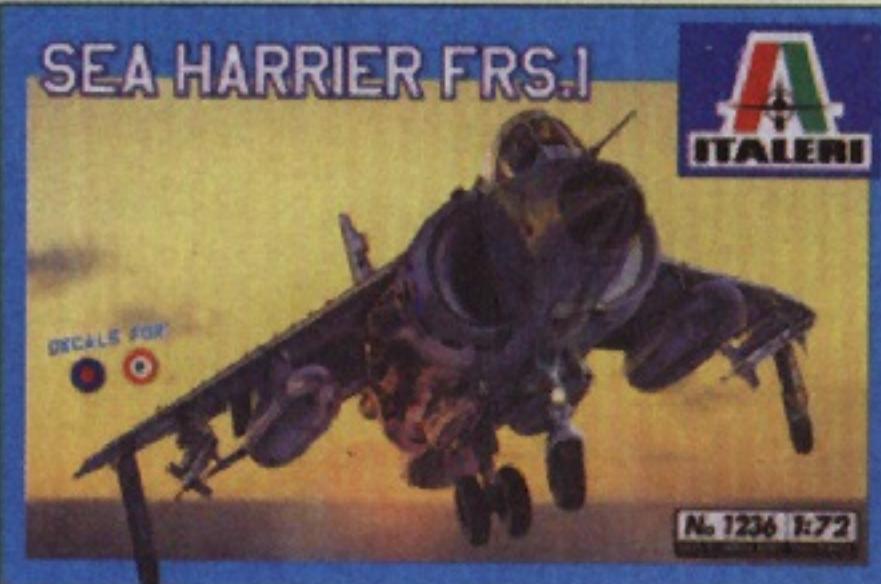
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BAe Sea Harrier FRS.1

Technical Data

Scale: 1/72nd
Kit No: 1236
Price: £5.99
Origin: Esci (Italy)
Panel Lines: Recessed ✓
Status: Reissue ✓
Type: Injection Moulded Plastic
Components: Plastic 69 (Grey), Clear 3
Decal Options: 3
Manufacturer: Italeri
Importer: The Hobby Company Ltd.



The Kit

This comes in the usual end-opening box adorned by quite a reasonable piece of box art. Inside there is an interesting development. The kit comes on four sprues, three light grey and one clear. The opaque sprues are not bagged. Any parts that break free can be potentially lost (not really, as originally this box was shrink-wrapped - Ed). The transparency sprue, however, is bagged so is protected from damage. At least somebody at Italeri is listening to customers. Unfortunately, in this instance the transparencies are so bad, it's a pointless exercise.

First impressions are of extremely fine recessed panel lines, crowded sprues, and lots of flash. The canopy is two-piece so it can easily be posed open. The breakdown of the major components point to this being a multi-version kit. I guess the generic component is the main fuselage. Split vertically, it stretches from the fan of the engines through to the tail, with a large cut-out on the top into which you drop a wing. Sea Harrier specific components are: the wing (full-span moulding, with two underside wing halves); nose section (vertically split from just forward of the engines to the nose, containing the cockpit); and fin and tailplanes.

Instructions

Instructions are your usual multi-symbol, step-by-step, exploded diagram type. They open up, concertina style, to a length of 90cm (about 3 feet)! Sprue layout is given, along with the parts not used. The paint and decal placement diagrams are well printed.

Construction

Let's start with the cockpit, the instructions do. The sides of the cockpit are featureless, apart from being festooned with recessed ejector pin marks. There is an equally featureless tub (my notes say it has flash), on to which you slap a couple of decals to represent side consoles, glue in the ejector seat, a reasonable looking

control stick, and a forward control panel (onto which is slapped another decal). Don't stick the ejector seat in until later in the construction process.

Italeri have made some effort with the ejector seat, giving it a decent shape, with some detail. How correct that detail is, is beyond me, however even to my inexperienced eye the ejection seat just didn't look right. Behind the headrest is a large rectangle of plastic. Poring over indistinct photos in my meagre references seemed to indicate that this is a feature of AV-8 ejection seats. I trimmed off the rectangle of plastic, added a couple of decals from the spares box to give a little interest, and then finished off with some harness straps made from masking tape.

The tub is glued onto a ledge in the cockpit. Strangely Italeri have only provided only one ledge on the starboard half of the cockpit. You have to manoeuvre the left hand side into place. I used the ejection seat as a reference to get it all square, but the seat was not glued in. Behind the

before you can effectively dry fit the nose/cockpit sub-assembly. So on to the main fuselage.

Three parts need to be sandwiched between the two fuselage halves: the fan, the main undercarriage, and airbrake housing. I must admit I quite like how Italeri have moulded the fan, painted silver, with the bulkhead white, it looks quite realistic. The main undercarriage is reasonably well moulded, requiring a minimum of clean up. The fit of both these parts into the fuselage is quite good. Less can be said about the reasonably detailed airbrake housing. There are no locating pins for this part. It fits into slopes moulded into the fuselage sides. The process to get it to fit properly is fiddly, and I had a bit of a gap when done.

The resulting fuselage seam line is not offensive, though I did manage to somehow obliterate all engraved detail on the underside of the fuselage. This is not difficult as some of the engraved lines are so delicate it seems they can be removed by simply breathing on



ejection seat is a sloping shelf, with a prominent seam line running down the middle of it. It is easier to clean up this seam without the ejector seat in place. The fit of the nose/cockpit halves is quite good and only a minimal amount of loss of detail was encountered when cleaning up the seam.

On the back of the nose/cockpit is attached the forward internal engine trunking, parts 1A and 6A. This doubles up as the forward wheel well. It is imperative that you dry fit this part against the main fuselage assembly, as it engages a small round hub in the middle of the fan. In my sample this trunking sat a good 1 mm too low, so it would not engage the hub. I had to trim the top of the assembly to get a good fit. Once this part has been glued to the nose/cockpit assembly I would suggest painting the fuselage sides, just aft of the cockpit opening, white. There are significant gaps at the top and bottom of the trunking, where it doesn't join well with the nose/cockpit assembly. These gaps are hidden by the engine cowls so there is no need to clean them up. It goes without saying that the main fuselage assembly should be built

them. The fit of the cone on the end of the tail boom is not brilliant.

At this point I glued the nose/cockpit assembly to the fuselage assembly. Fit is reasonable, but work with a bit of filler is required to eradicate any hint of a join. I would suggest scribing the recessed panel lines before sanding the seam because they are so delicate it does not take much sanding to remove them.

I ignored the instructions and fitted the top wing section first. When the cement was dry, I then fitted the two bottom wing sections. The underside wing to fuselage join is quite excellent. I wouldn't say the fit of the top wing section into its housing is brilliant, but it could have been a lot worse. Some may decide to live with the gap but I didn't, so in with the filler, and rather a lot of careful sanding and scribing was required to blend the two together.

Moving onto the cowls. They do represent the cowls of the Harrier to a reasonable degree. Unfortunately, the pattern maker did put the sprue lugs in the most inconvenient places i.e. straddling intake door lines and other raised detail. This inconvenience was a recurring theme throughout the kit.

With just a little thought, the lugs could have been better placed so as to reduce the amount of trimming required. Once cleaned up, I pre-painted the inside of the cowls white, then masked off the area just behind the intake lips. The fit of the cowls to the fuselage is reasonable, and they wrap around the internal trunking without too obtrusive a gap. A touch of filler and sanding is required to fully blend them in with the top and bottom of the fuselage.

Each of the four nozzles is made of two parts. A considerable amount of sanding was needed to blend the parts together. The top louvre on the nozzles is solid. It would take a reasonable amount of effort to open them up. Other than that, the nozzles are quite sharply moulded. Leave them off until after they and the model have been painted, otherwise you'll have a nightmare of a masking job. They are so tight fitting into the fuselage I didn't need to glue them in place.

On the underside of the fuselage you have two (ventral) options: missile rails (no missiles are supplied by Italeri) or 30mm cannon pods. I went for the pods. Each pod is made up of two parts, and yet more recessed lines are lost as the seams are cleaned up. Placement of the rails or pods is rather hit and miss. There are no locating pins or slots, and the instructions are vague as to where to put them. However, when I did manoeuvre them into place, they did conform to the fuselage contours with no gaps. There is also an airbrake. I fitted this in the open position, as per the instructions, though I can't find a photo of an aircraft on the ground with the brake in the open position.

Hanging-off bits are confined to a couple of drop tanks and missiles. The fins on the missiles would benefit from sanding to reduce their thickness, while the two ejector pin marks on each need attention. Missiles and drop tanks fit on to some reasonable looking pylons. Note, leave the under wing pylons off until AFTER you have applied the under wing decals. I didn't. I had a merry time trimming the under wing decals to fit round the pylons.

Moving on to the transparencies. The hud has a passing resemblance to the real article. I intended to use it but lost it when it pinged into the carpet. I may replace it with a scratchbuilt item. I'm convinced there are sufficient lost parts in the carpet to make a model of the Shuttle launch pad. The windshield is thin and well moulded, however there is something not quite right about it, and I don't have sufficiently clear photos to pinpoint my concerns. It does not properly fit the fuselage, and therefore needs work (aka filler/sanding) to blend it in. The main canopy, the sliding bit, is a disaster. It's not very clear, containing numerous fine scratch marks where I assume the mould has not been



smoothed properly. There are deep gouges and raised plastic on the lower left side of the canopy. These need filling and sanding. I did not do a good job, but luckily the area is hidden under a fussy decal.

One curious observation: How does the pilot get out of the cockpit? To display the model with the canopy open, Italeri suggest a gap of 6mm between the windshield and the main canopy. Slide the main canopy back 6mm and it hits the blade aerials atop the fuselage; it can't slide back any further! The poor pilot has quite a squeeze to get in and out of the cockpit.

Onto the variety of blade aerials sprinkled over the fuselage. They have all the aerodynamic qualities and dimensions of a house brick. They also do not have any locating pins, being simple butt joins to the fuselage. Plenty of potential for knocking them off.

I managed, at an advanced stage of construction, to finally knock off the nose probe/pitot (?) tube. Just as well, as it suffers from a couple of problems. First, the way it is moulded on one half of the fuselage means it is offset slightly. Secondly, it has a nobbly bit on the end. This is absent from all the photos of Sea Harriers I have. The knob was removed, and the profile of the tube changed so it tapered. I glued it on when the model was finished.

I also managed to break off the delicate 'wind vane' or sighting device (pardon my ignorance) on top of the nose, just in front of the windscreen. In attempting to glue it back I 'pinged' this small, grey part into the open maw of the giant, grey carpet monster. I scratchbuilt a replacement, and it was the last thing I stuck on the model.

After painting, the nose wheel and wingtip wheels were cleaned, painted and glued into place. They are reasonably well moulded, but I do not know how accurate they are, though they certainly look the part. All the wheels do not touch a flat surface at the same time. The central wheels were about 1mm shy. I used a hot iron to flatten the nose wheel and wingtip wheels to give that weighted look, and to get the central wheels to touch a flat surface at the same time as the other wheels.

Colour Options

Italeri provide you with a choice of three: an all-grey version from No.801 Sqn, RNAS HMS Invincible, sporting a nice checkerboard fin. Two grey/white versions from No. 700 Sqn, A Flight,

RNAS Yeovilton, one is rather plain, while the more exciting of the pair has nice tail decorations of a large red, letter 'A' crossed with a bird of prey with outspread wings. Finally, another grey/white example, this time from No.300 Squadron, INS Vikrant of the Indian Navy.

All the colours are called out in Model Master Acrylic paints. I don't have any Model Master paints, so it was a case of using whatever I had lying around. Amazingly I had some Humbrol Dark Sea Grey acrylic. Thinned with water, with a touch of retarder, this ancient stuff sprayed quite well over Halfords white primer. I think I'll give up on the latter. It's too coarse, imparting a pebbly finish, which the Humbrol acrylic bled under. The black parts were painted Games Workshop Chaos Black. The forward nozzles painted Games Workshop Gunbolt Metal, while the rear nozzles were painted with a combination of Gunbolt Metal and Gunze Dark Earth, to simulate their charring. Finally, a coat of Johnsons Klear was sprayed on to all surfaces of the model to impart a satin sheen. Italeri would have you paint the model with flat paints, but most photos show FRS.1 Sea Harriers having a satin finish.

In case you're wondering about the finish, I applied some weathering with black and brown pastel dust. Photos of the underside of FRS.1 Sea Harriers show them to be surprisingly dirty. The weathering also helped disguise the over-spray mistakes I made when spraying over insufficiently placed masking.

Decals

As befitting an Italian kit, the decals are excellent; thin, with good register and

colour. The red walkways on top of the fuselage actually fit! It took a couple of hours to apply all the various insignia and stencils, bedding them down with Johnsons Klear. A relatively major omission, in my opinion, are any decals for the missile. Very strange as there are four for each drop tank. Decal Rating = 9/10.

Accuracy

I always find this section awkward to complete. I feel length and wing span comparisons convey a small measure of accuracy, but is a reasonable guide. Most of the sources I consulted seem to agree on a span of 7.70 m. Length however ranges from 14.12m to 14.50m. I guess it all depends on the nose-mounted probe. Anyway, this translates to a 1/72nd scale span of 107mm and a length of between 196mm and 201mm. The model, as measured by me, has a span of 107mm and a length of 198mm, though to be entirely fair to Italeri, in my hacking and trimming of the probe I did manage to lose about 2-3mm of it. It seems bang on to me. Aficionados of the Harrier may point out various deficiencies, but to my inexperienced eye it looks the part, and appears to be in good proportion with a fair amount of bumps and lumps in the right places.

Conclusion/Recommendation

There was a time when men were men, women were women, and Airfix kits were Airfix kits, and Revell kits were Revell kits, and Hasegawa kits were Hasegawa kits, etc. With so much cross kitting, mould swapping and buy outs, you just don't know who produced what flops out of the box. I think this is an Italeri kit, it certainly has all the hallmarks (Close, as it is Italian in

origin, it is the old Esci kit actually - Ed). It's a strange mixture of some excellent engineering (very delicate engraved panel lines, good fit of parts in places, etc), let down by some sloppy execution (flash on virtually every part, poor fitting parts, carelessly placed sprue lugs, poor cockpit, etc).

I reserve the recessed ejector pin marks for particular criticism. This model is covered with them, nay, festooned with them. Every part is blighted by the little blighters. If that were not bad enough, apart from the fuselage, wings and tailplane, I'd say every ejector pin mark is in a prominent position. It's as if the mould maker was having a bad time of it all, and decided to take it out on us modellers. Be prepared for a lot of filling and cleaning up. I'm quite taken aback by the ejector pin marks. Whilst reviewing this model I was building an Italeri MiG-29UB Fulcrum. Assuming its parentage is of the Italeri stable, it exhibits hardly any ejector pin marks, and those that are on the model are hidden as best possible.

It is difficult to decide upon any type of recommendation. A multi-variant kit like this is bound to encounter fit problems, and this kit abounds with them. An experienced builder will cope with these foibles but may find the whole process unnecessarily frustrating and time consuming. A beginner will either be defeated by them or simply not care and slap the thing together.

I believe a good model of the FRS.1 can be made from this kit with time, effort, a lot of trimming, plus scratchbuilding or use of aftermarket parts. I must say the Harrier would not be my first choice to build, so it comes as some surprise I now have three 1/72nd models of the Harrier.

Comparing this model against the other two and against photographs, I would say that it does at least look like an FRS.1, and quite splendid when parked against the other two, and I am pleased to have this model in my collection, though I wish I didn't have to spend so much time cleaning up the parts.

My thanks to The Hobby Company for the review sample.

Andy McDonald



OCTOPUS Chance-Vought TBY-2 Sea Wolf

Technical Data

Scale: 1/72nd
Kit No: 72038
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Production: Limited
Type: Limited-run Injection Moulded Plastic, Resin & Vac-formed Clear Plastic
Decal Options: 3
Manufacturer: Octopus (Pavla)
UK Importer: Hannants



The Kit

Octopus is a relatively new name to the modelling world, but in reality it is only the name that's new, as Octopus equals Pavla. In fact, apart from the end-opening box, I found no other references to 'Octopus' in the kit at all.

The kit itself is pure Pavla, with all parts bagged within a medium-sized end-opening box. Within the main bag are two injection moulded sprues and three other smaller bags containing resin detail bits, glazings and the decals.

The injection parts are moulded in a hard-looking light grey plastic and are typically short-run in that the attachment points are chunky and some flash was present. All panel lines are very lightly engraved which eventually all but disappear under a layer of paint. The engine cowl gills in particular could do with being a bit deeper. The 22 resin parts are of good quality with minimal cleaning up required and are generally easy to separate from their pouring lugs. The canopy and turret glazings are vac-formed items that are commendably clear with nice framework. Only one of each is supplied.

Instructions

The instructions are in the form of a 16-page A5 size booklet and are definitely the best thing since sliced bread. While there were a couple of minor errors within (more anon), the presentation and information were more than enough for all but the fastidious. I particularly liked the 'info' views, which depict very clearly how the detail parts should sit once assembled. Very useful.

Painting details are highlighted throughout construction with paints being referenced by name, FS number (if appropriate), Humbrol and Ag (?) numbers.

The standard for instructions has been set.



Construction

If you treat this kit just like any other short-run production then you really can't go wrong. Careful preparation of the parts is the first key i.e wash them first to remove moulding residue, don't snap them off the sprue due to the large attachment points and clean up all mating faces as they can be a little irregular.

The second key is to always dry-fit first, as this kit requires a fair amount of trimming/filing/sanding to ensure good fit of parts. Allied to this is that there are a number of prominent injection towers that must be removed within the wings and fuselage. The third key is to remember to use a superglue when attaching the resin bits.

Specific points of note for this kit are:

- The cockpit is well detailed but the turret area is rather sparse [Pavla produce a separate interior detail set for this kit in resin, see Vol 9 Iss 11 page 1024 for a full review of this set - Ed].
- The resin undercarriage wheel wells are too deep as supplied. Be prepared to drastically thin the upper wing and top of the well.
- The wing trailing edges are pretty thick and need thinning.
- The wings butt-join to the fuselage and mine were slightly thicker than the fuselage roots to which they abutted. A couple of layers of filler were required to build the latter up.
- Most of the engine cowl is moulded integrally as part of the fuselage, except for the front end, which is provided as a resin piece. While nicely moulded it was slightly too small and again some filler was required to match profiles. Do note that the instructions depict attaching it with the rounded intake to the top, whereas photos and other drawings in the instructions show it at the bottom, which is how I fitted mine.
- Some underwing stores are provided, as are mounts for rockets but not the rockets themselves. The bomb-bay doors can be modelled open but no torpedo or bombs are provided. Pavla do helpfully recommend their own weaponry sets if you wish to be fully armed.

The canopy was hard work. Only one is provided which was rather scary for a canopy-klutz like me but I managed to cut it out without too much drama. Unfortunately it is narrower than the cockpit and needs to be forced to fit. As such it doesn't want to sit very well and you may need to modify the fuselage top a little to get a good fit.

Accuracy

Out of four reference sources (two internet, the instructions and The Hamlyn Concise Guide to American Aircraft of WWII) none agreed with another regards dimensions, though the variance was no more than 7cm. The model measures 240mm in span and 163mm in length which, taking the largest reference dimensions, makes it no more than 2mm out in span and 3mm in length. More importantly, everything looks proportional and correct.

Colour Options

Three options are fully catered for, with excellent painting guides. The initial option is for the first TBY-2 on 20 Aug 1944 in a two-tone blue over white scheme. The second and third schemes are basically overall Glossy Sea Blue (FS 15042) with different markings for either a VT-154/155 machine at NAS Qounset Point or the last surviving Sea Wolf at NAS Norfolk in 1948.

I finished mine in the second scheme but did not use the recommended Humbrol paint (181) as I could not find it anywhere (possibly discontinued?). I know Xtracolor have an equivalent but I ended up mixing my own shade by eye.

Decals

Nicely registered, these are very comprehensive and gloss in finish. I did get caught out initially with how quickly they separate from the backing paper, so don't immerse

them for more than a few seconds.

They settle well onto a gloss surface and while decal softeners (e.g. Micro Sol) have no immediate visible effect, I did find that those decals upon which I had used softener ended up conforming slightly better to the surface detail than those without.

The white is thin in density, which is OK unless you have a change in colour beneath. The instructions quote decals 18 and 19 back-to-front and a couple of the wing-root markings are printed in reverse, but still adhered properly.

Finally, the instructions show red centre lines within the 'star and bar' bar, but while these are provided, I'm not convinced they are appropriate for this example (the box top picture agrees with me). Decal Rating = 7/10.

Conclusion/Recommendation

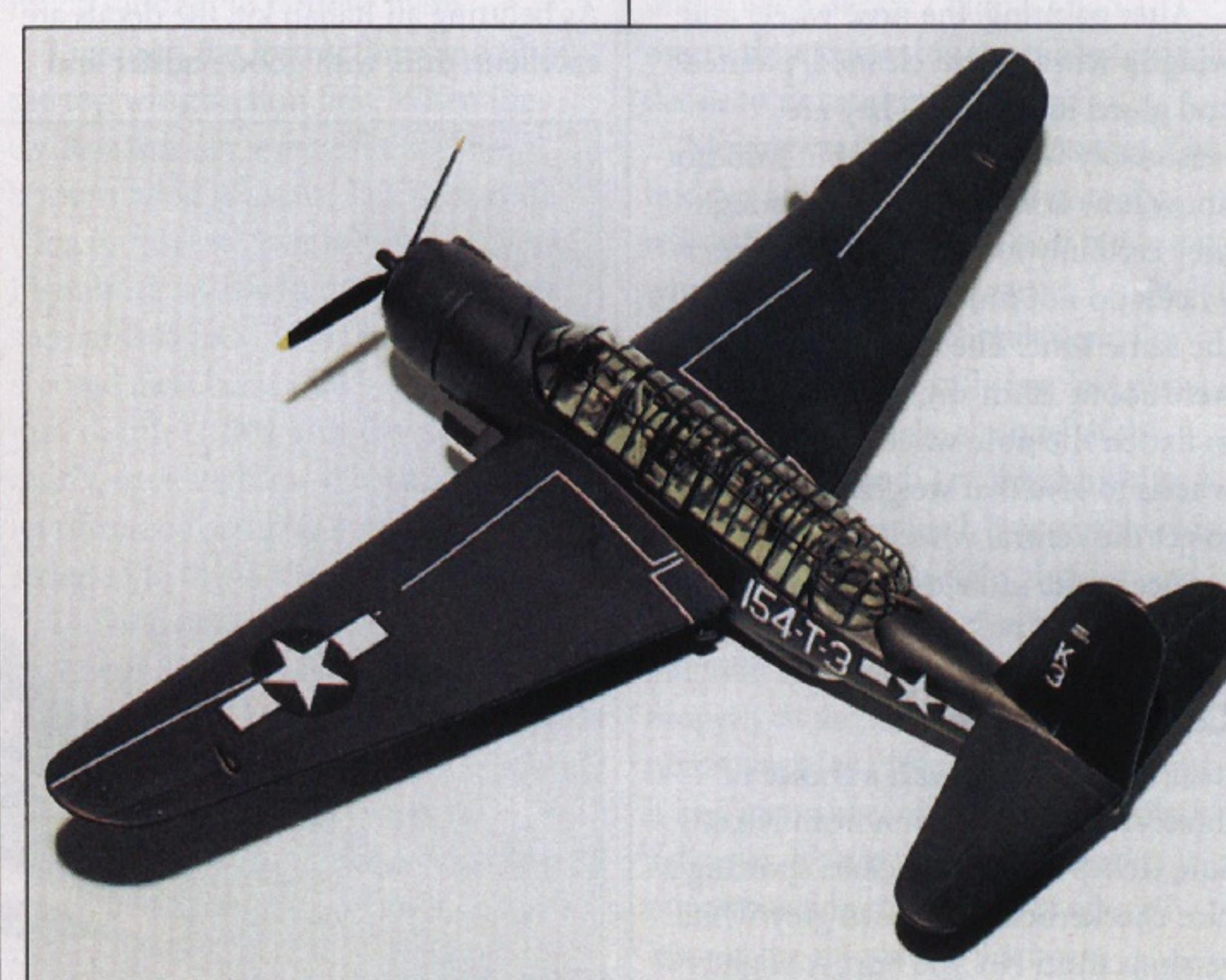
The Sea Wolf was one of those 'what-might-have-been' aircraft. Conceived at the same time as the Grumman Avenger, and actually the better of the two, it was only a lack of production capacity that prevented it realising its potential during WWII; afterwards was too late.

Pavla, in the guise of Octopus, have produced a short-run kit that, with a little effort, builds into a fine replica. Take your time, have some filler handy, be patient with the canopy and you won't have too many problems. Recommended.

Thanks to Octopus (Pavla) for the review sample.

Paul Stockley

P.S. If you trawl the books/internet etc looking for references please be aware that due to its convoluted manufacturing history, references can be found under Consolidated, Vultee, Vought and even Sikorsky! [and Chance-Vought and Vought-Sikorsky! The type was originally designed by Chance-Vought, but production was handed over to Consolidated, so this is why there is such confusion - Ed]





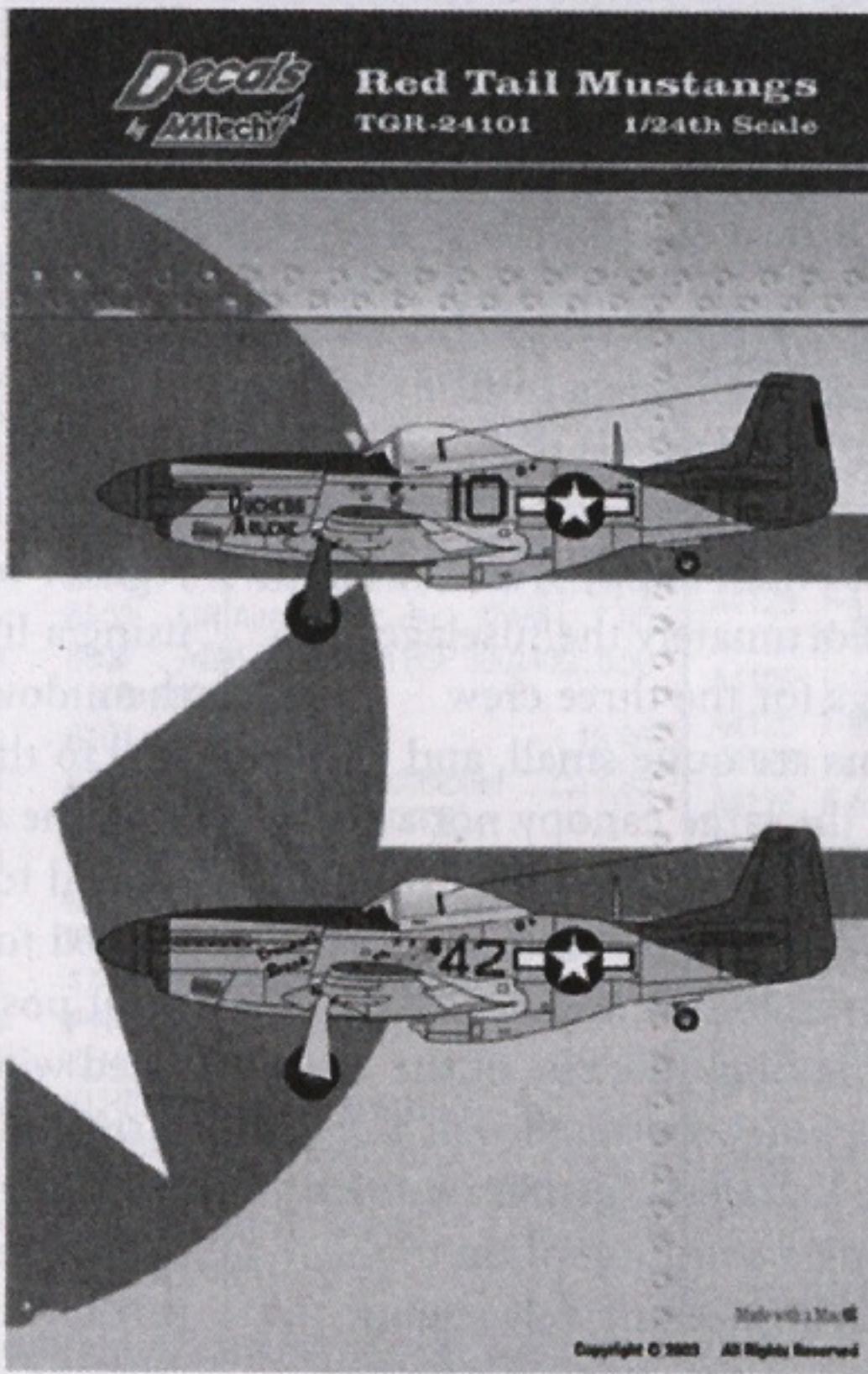
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Tuskegee Airmen P-51D's in 1/24th Scale

P-51D "Duchess Arlene"
P-51D "Creamer's Dream"

Decals By AMtech (DAM24101)



FEATURED AIRCRAFT

- * Hs-123A-1 3.JG 165 "Immelman" Furstenfeldbruk, 1937
- * Hs-123A-1 5./LG2 Belgium, 1940
- * Hs-123A-1 FFS Schule (A/B) 71 Prossnitz, Moravia, 1941
- * Hs-123A-1 4./SchG 2 Eastern Front, USSR, 1942
- * Hs-123A-1 61st Sq. Spanish Air Force, 1943

J/JG 165 "Immelman" markings shown
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Hs-123A-1 in 1/48th
For ESCI/Italeri kit

Decals and markings for
FIVE aircraft.

Decals by AMtech (DAM48105)

RETRACT
AWAY

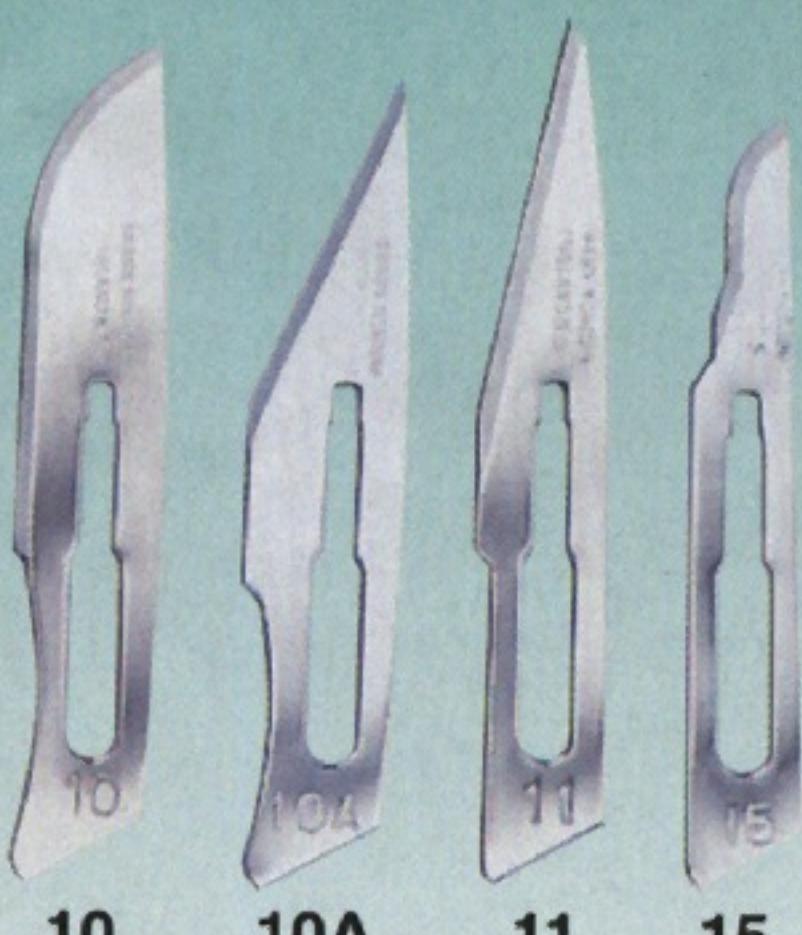
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Nakajima C3N1

Technical Data

Scale: 1/72nd
Kit No: 72011
Price: £TBA
Panel Lines: Recessed ✓
Status: New Tooling ✓
Production: Limited
Type: Limited-run Injection Moulded Plastic & Vac-Formed Clear Plastic
Decal Options: 1
Manufacturer: AML
UK Importer: Hannants

**The Kit**

The kit comes in a rather flimsy lid top box. The artwork is not the best quality you will come across but does the job. Inside there are two sprues of olive green plastic which appear limited run. Despite this the main airframe parts have quite nice, delicately engraved panel detail. The detail parts are usable too. The canopy comes in vac-form plastic and the package is rounded off with a nice looking decal sheet.

Instructions

These come as a single folded A4 sheet. There is a page for the colour and decal placement guide together with a brief history in English; a double page of exploded assembly diagrams; and finally a page of sprue maps, colour chart and a couple of useful references. Helpfully, the colour chart refers the modeller to F.S. codes, Humbrol, Gunze Sangyo, Model Master and Agama paint ranges (the latter a new one on me).

Construction

I started with the interior which comprises a full length floor, instrument panel, bulkhead, and seats for the three crew positions. I found great difficulty getting anything like a good fit of the floor and bulkhead which were simply oversized for the fuselage. In trimming them down to fit I lost some of the detail on the instrument panel and bulkhead and I was less than happy with the end result. Fortunately the fuselage openings for the three crew positions are quite small, and despite the large canopy not a great deal of the interior can be made out once everything is together.

Apart from this initial disappointment the rest of the construction progressed well and I had the airframe together in quick time. I paid some attention to the undersurface wing/fuselage joint and finished this area off with the only filler used on the entire model. The canopy was trimmed from its backing sheet and I got a good fit after a little tweaking here and there.

All in all, apart from the severe problems with the interior, this was not a difficult construction job.

Accuracy

The technical data on the instruction sheet quotes a span of 13.7m and a length of 10m. The model measures up to 13.7m span and 9.9m long. This margin is OK by me in 1/72nd scale.

Colour Options

There is just one option given in the kit. The instructions do not identify the unit or location for the option given. This is in overall silver with blue/black cowling and simple

Hinomaru, red tail feathers and red/white fuselage band. I finished my model in my own metallic grey mix using Tamiya acrylics, with Tamiya gloss red tail and Humbrol satin black for the cowling. I have a treasured jar of Aeromaster Nakajima interior colour which I used on this model.

Decals

The decals appear thin and in register on the sheet. I applied them using a little Micro Set to try to bed them down and generally they fixed well to the model. I had difficulty with the fuselage band which is not shaped to the rear fuselage and tended to kink when I was trying to get it positioned accurately. They dried with only a trace of the carrier film but did not sink completely into the panel detail. I should really have given them a further treatment with Micro Set or perhaps a light application of Micro Sol to finish the job.

Decal Rating = 7/10.

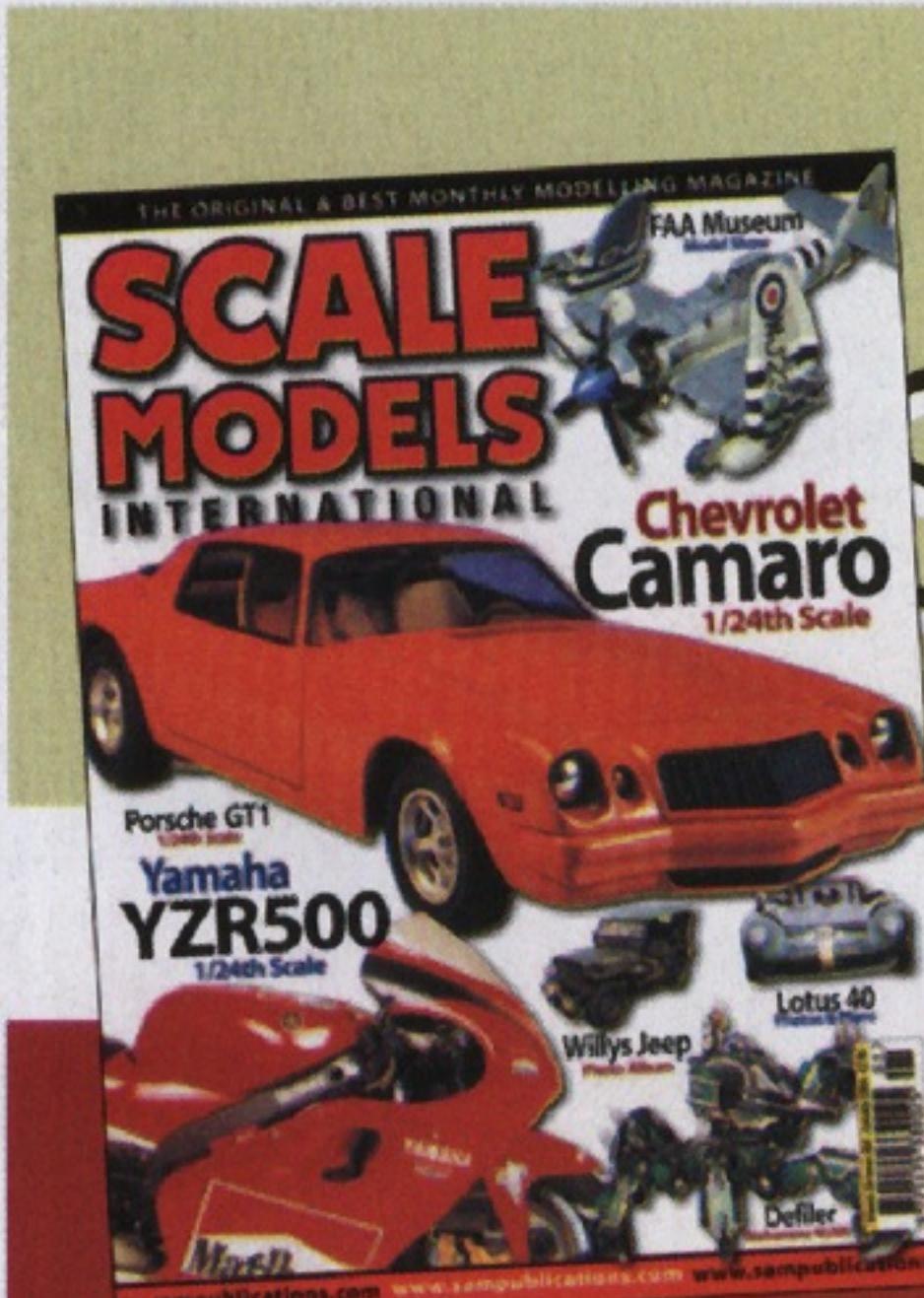
Conclusion/Recommendation

This model is a debut for me with this manufacturer. AML are to be congratulated for an unusual subject which as far as I am aware is unique in the current catalogues. The only difficulty for most modellers will be the cockpit fit which caused me so many headaches, but if you manage to overcome that the model can be built up to a reasonable looking replica. I suspect the kit will attract diehard Japanese aviation fans but the subject matter may have limited appeal for many. Personally, I'm delighted to see so many new and rare Japanese subjects coming onto the market, and I applaud AML for continuing the trend.

Recommended to those who can defeat the interior fit problems and who wish to fill their ranks of pre-WWII Japanese aircraft.

My thanks to AML for the review sample.

Steve Hewitt



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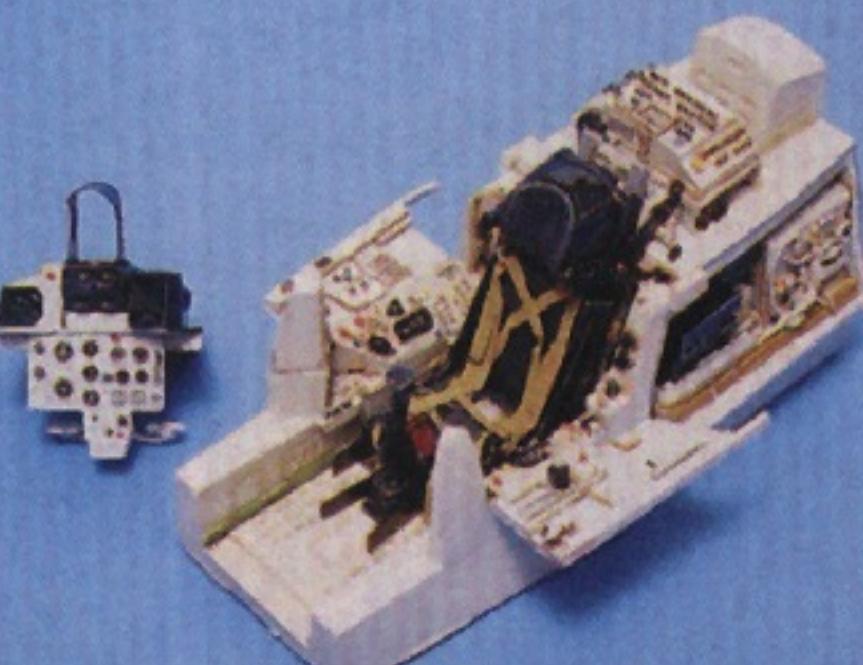
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accessories

Note: All items for this column are to be sent to:
Group Editor (Richard A. Franks), Media House, 21 Kingsway, Bedford, MK41 6DW, UK

Contact

A new resin update set from this manufacturer has been passed to us for review this month.

1/32nd Scale

Subject: Dewoitine D.520

Scale 1/32nd Product No: CK32001

Type: Update Set Designed for: Azur kit

Price: €65.00

Includes: This is a fairly involved set, offering both interior and exterior details for the Azur kit. The main resin components consists of a completely new nose, separate rudder, tailplanes and elevators, main and tailwheels, spinner, propeller blades, radiator and cockpit (floor, seat base, sidewalls and rear bulkhead). The white-metal element consists of main oleo legs, cockpit bracing bar, control column, rudder pedals and alternative cockpit sidewalls and seat base. The third medium used in this set is etched brass and on the fret you get new undercarriage doors, radiator matrices, seat belts, instrument panel, 'lantern' gunsight, radiator flap and various control levers for the cockpit interior. The final element is a replacement vac-formed canopy, which is a great idea as the kit only included a single unit that did not allow you to build it in the open position.

Conclusion

This is an excellent set, though it is not cheap at well over twice the price of the kit, but it does allow you to add a lot of extra detail to the kit as well as correct errors in the outline of the nose and radiator. Being in such a big scale the cockpit update is a very good idea and many of you will have already noted that Azur themselves intend to do an



CK32001 Dewoitine D.520 (Azur) - Contact

updated 'hi-tech' version of the kit anyway later this year. Why wait, this set is sure to be far more comprehensive!

Our thanks to Contact for the review sample. We are unaware of a UK stockist of this range at the time of

writing, so all enquiries should be made to Special East, the worldwide distributor of the Contact range.

CMK

This month sees a single new resin update from this firm and a sample of it has been supplied directly to us for review.

1/48th Scale

Subject: Mitsubishi A6M5/A6M5c Engine Set

Scale 1/48th Product No: 4131

Type: Update Set Designed for: Hasegawa kits

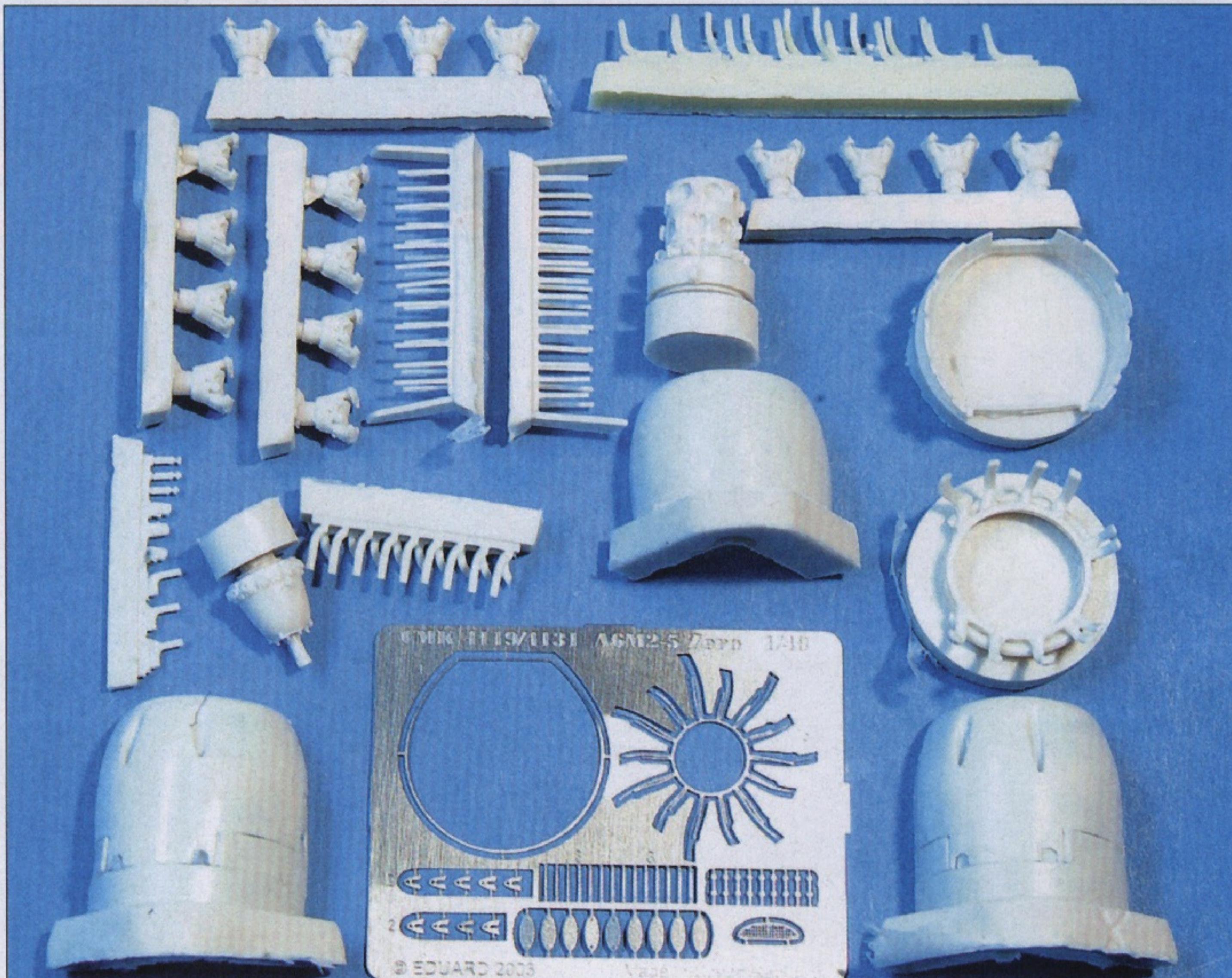
Price: £TBA

Includes: This set comprises both resin and etched detail parts. The resin components consist of the complete engine (made of separate block, reduction gear casing and cylinders), exhaust stacks, rear collecting ring, cowl gills and separate cowlings. The etched fret offers the cylinder head bracing struts, ignition harness, cowl rib and cowling fasteners.

Conclusion

This is another excellent engine set from CMK. The level of detail on all the components coupled with the finesse of casting means that they are stunning and should be recommended to all; their complexity though means this set is only really suitable for the more experienced modeller.

Our thanks to CMK for the review sample. This range is imported into the UK by Hannants.



4131 Mitsubishi A6M5/A6M5c Engine Set (Hasegawa) - CMK

ExtraTech

There are a couple of new etched detail sets from this manufacturer this month, samples of which have been sent directly to us for review.

1/72nd Scale

Subject: Junkers Ju 87G-1

Scale 1/72nd

Product No: EX 72144

Type: Detail Set

Designed for: Academy kit

Price: £TBA

Includes: This set includes a new instrument panel (with acetate backing film), bulkhead, rudder pedals, ammunition box, seat belts, MG81Z gunsights, gunner's seat and strap for the cockpit interior. Externally you get a new chin intake grille, radiator flaps, control linkage, elevator deflector plates, cannon brackets, ammunition magazine and perforated muzzle brake.

Subject: Lockheed L-1049G Super Constellation

Scale 1/72nd

Product No: EX 72146

Type: Detail Set

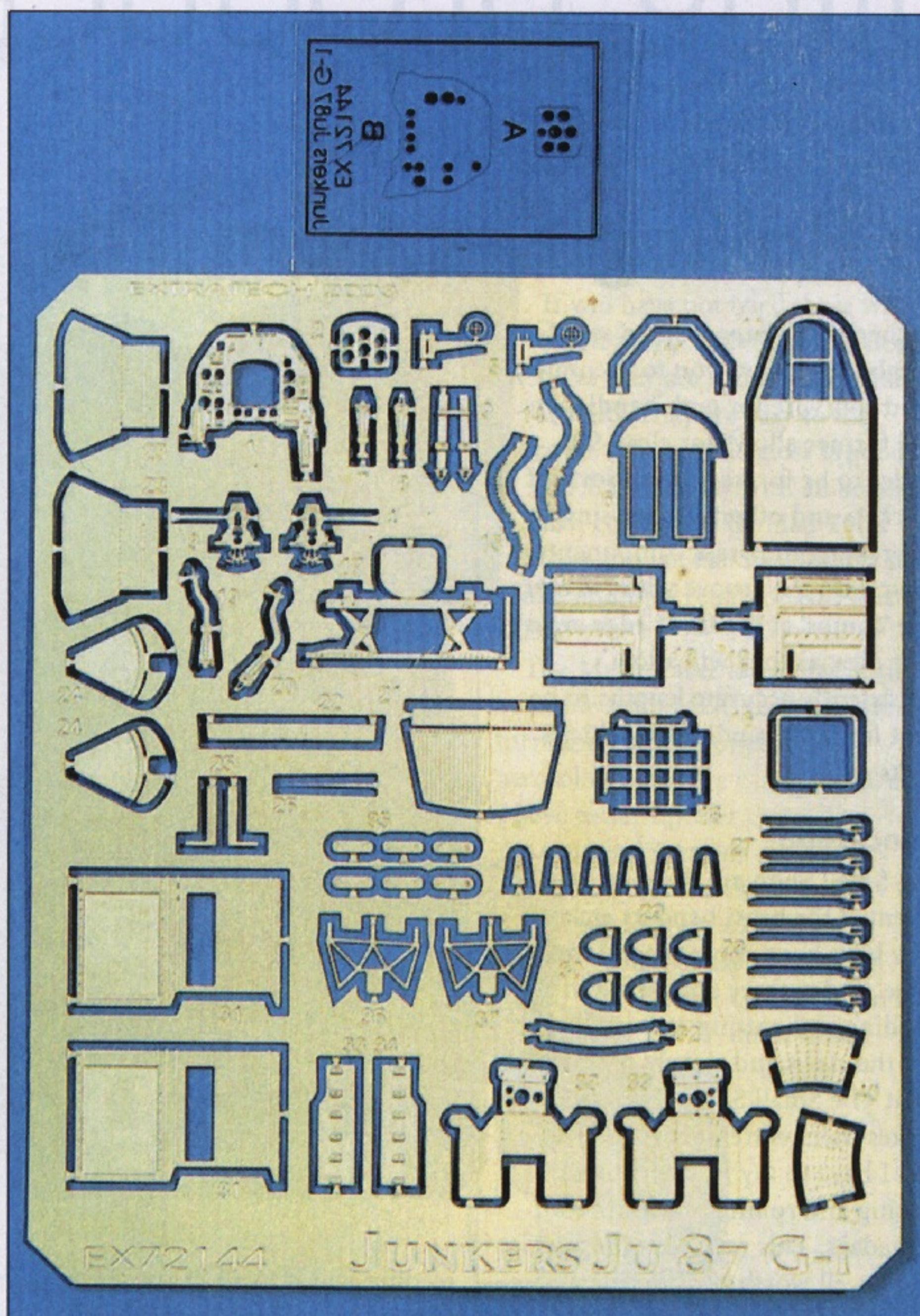
Designed for: Heller kit

Price: £TBA

Includes: We made mention of this set last month in the build article on the Constellation so it is nice to cover it in more detail here. This is a large two-fret set and it offers a complete new flightdeck with engineer's panels, desk and seat, radio operator's desk, seat and equipment, pilot and co-pilot's seats, instrument panel with acetate backing film, cockpit rear bulkhead, canopy wipers, nose and main wheel well bay details (new roof, sides etc), undercarriage doors, wheel hubs, oleo leg compression linkage, radiator intake screens and a number of external aerials.

Conclusion

I have used ExtraTech sets in the past and they are very good. These two new sets are no different and offer excellent quality and levels of

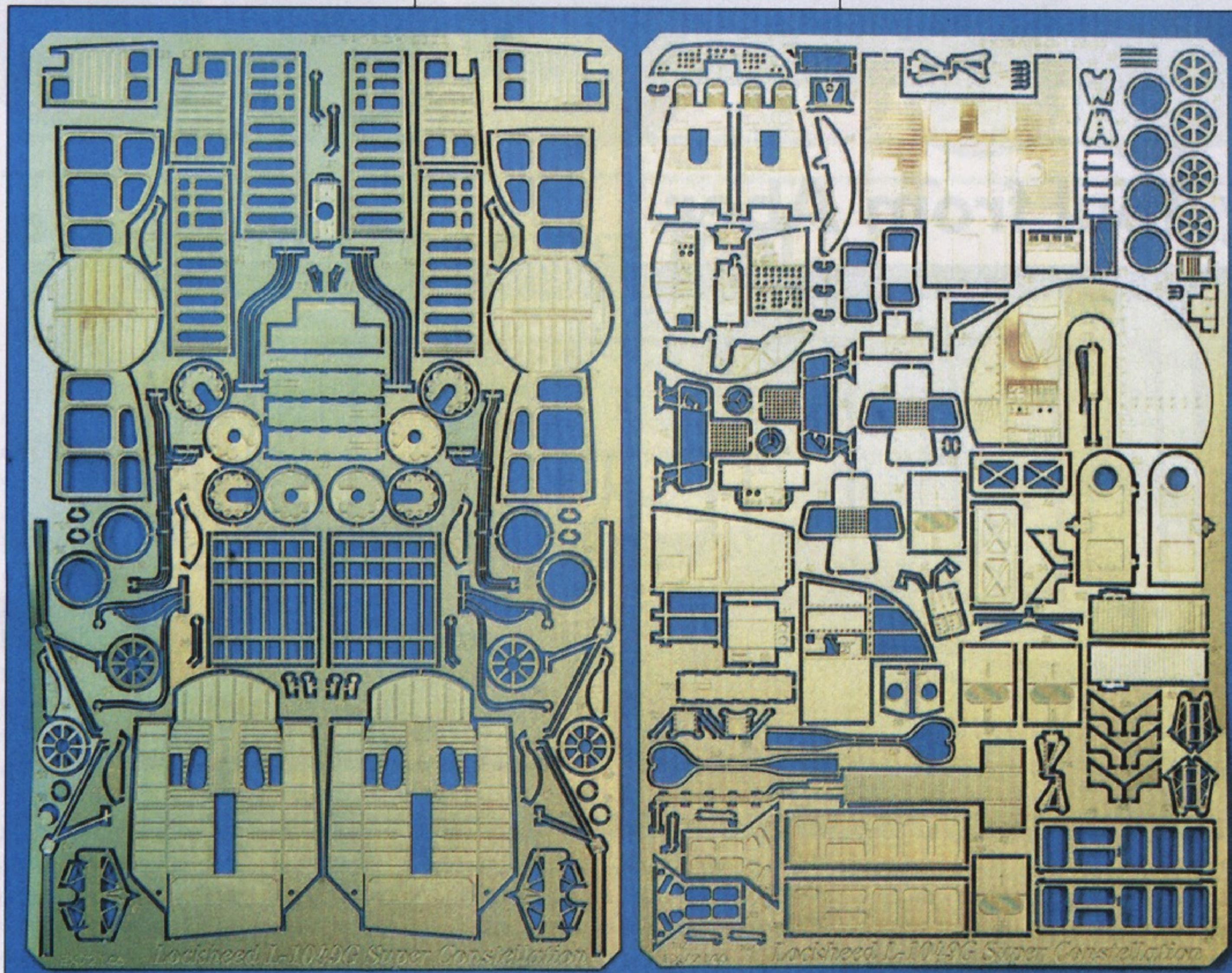


EX 72144 Junkers Ju 87G-1 (Academy) - ExtraTech

details and therefore can be highly recommended to all.

Our thanks to ExtraTech for the review samples. UK modellers can

obtain this range from Aeroclub or Hannants.



EX 72146 Lockheed L-1049G Super Constellation (Heller) - ExtraTech

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modelling products

Revised Brass Rolling Set from The Small Shop

Some of you will recall the first version of The Small Shop's very clever brass rolling set that came out a few years ago, well now the 'Mk 2' version is here and a sample of it was passed directly to us for review.

BrassAssit Roller Set Mk 'MC'

This set now comprises an aluminium base unit with various radii recesses in it and a selection of different diameter rods made from either aluminium (large), brass (medium) or steel (small). The rolling base is made of hard aluminium that is clear anodised for better resistance to wear. The underside of it has a rubber mat on it and this is ideal for rolling flat brass into cylinders (very clever). Also now included on the other side of the bed, apart from the usual indentations for rolling brass, are

90° bending formers and a set of 'combs' that allow you to accurately bend soft wire for grab handles etc. The former allows for clean 90° angles to be formed for all sorts of brackets and other fittings, simply by pressing the brass components down into the groove with tweezers. The 'combs' at the front edge are a neat idea, as they will allow consistently accurate lengths to be bent for grab handles for vehicles, tanks etc.

Conclusion

The Small Shop are the guys who invented the brass benders etc and they have been copied many times since. Today there are a mass of bending and cutting sets out there, but the clean and simply nature of what The Small Shop offers still makes them extremely attractive and I have to say I use my brass cutting and rolling sets quite a lot nowadays. This revised rolling set is

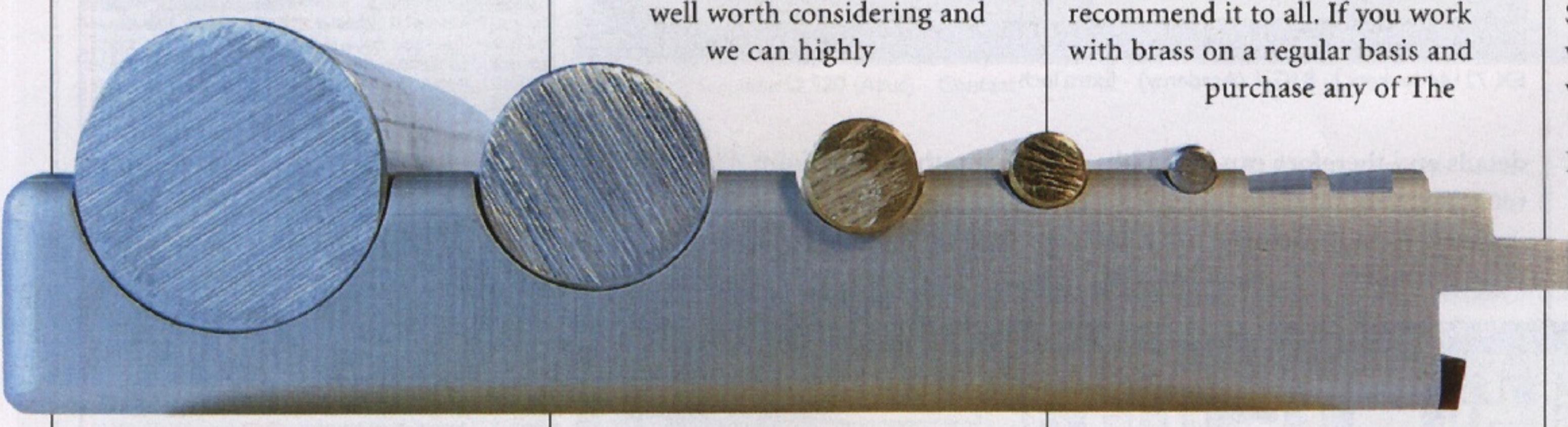
well worth considering and we can highly



recommend it to all. If you work with brass on a regular basis and purchase any of The

Small Shop tools you will soon be wondering how you ever managed without them!

Our thanks to The Small Shop EU for the review sample. UK modellers should contact Little-Cars.com, as they are the official stockist of this range.

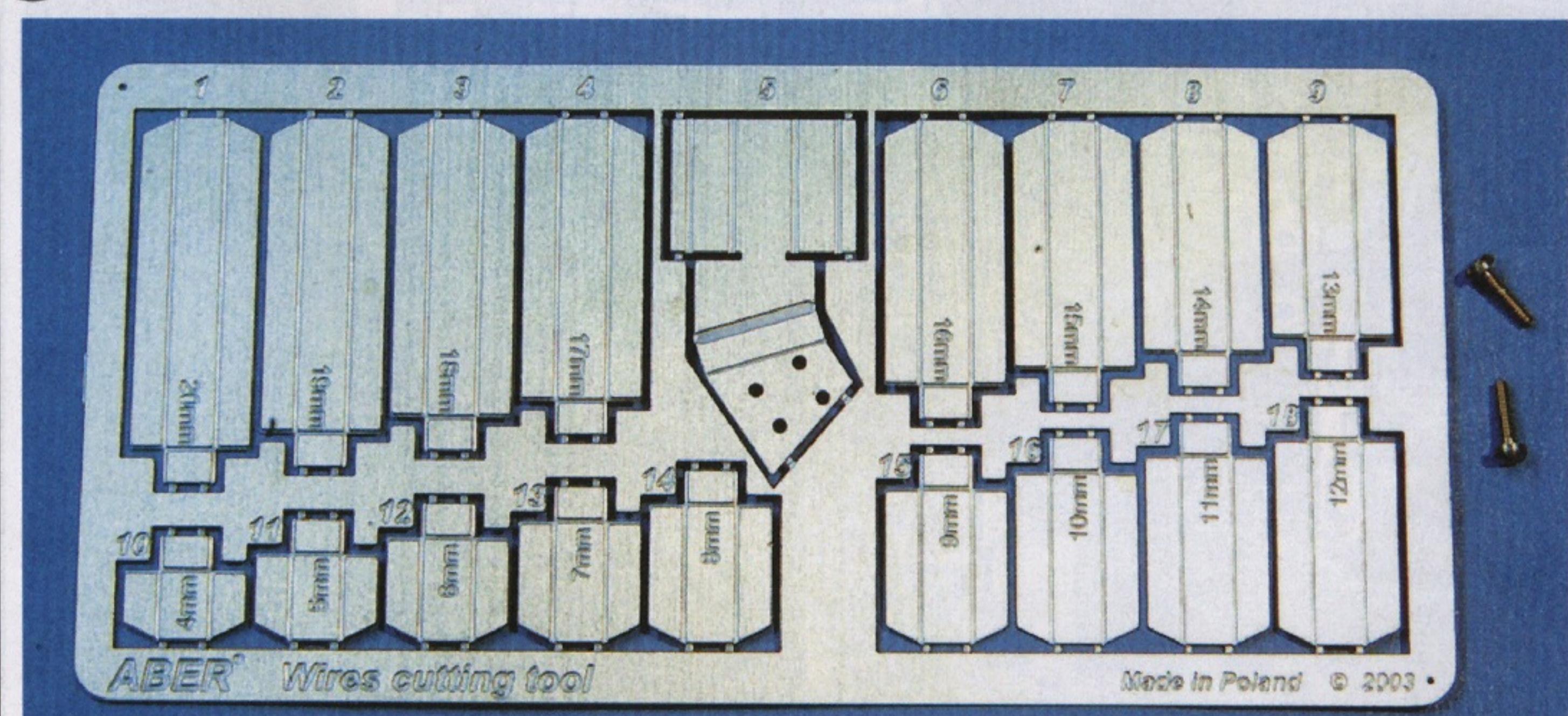


Wire Cutting Tool from Aber

Well known for their etched detail sets and accessories, Aber have now started to put their experience with these mediums to use in producing tools from the modeller.

Wire Cutting Tool

This 'tool' consists of etched elements that need to be bent to shape as per the instructions. These make up into troughs that are secured to wire cutters via a holder that has previously been secured to the cutters via screws and thus allows wire to be accurately cut to 6mm, 9mm or 12mm lengths. The tool is quite clever, as it can be fitted to the left or right side of a pair of wire cutters via the block and clamp effect of the screws in one side of it. The only problem I can see is ensuring that your cutters have flat sides to the jaws so that this type of securing



method works. It is truthfully the only way to approach the problem though, as the sets needs to be generic and of course as a result there are certain cutters it will not fit.

Conclusion

Regardless of my comments on the fitment of this tool, the overall product is very clever and well made, as you would expect from Aber. It is

certainly well worth considering adding to your tool box, as wire and rod can be very difficult to cut accurately otherwise. Our thanks to Aber for the review sample.

decals

Cutting Edge Modelworks

A new batch of sheets from this manufacturer has been passed directly to us for review this month.

1/72nd Scale

CED72113 - A-10A Black Lightning

This sheet gives markings for an A-10A of the 118th FS, 103rd FW, Connecticut ANG in the special scheme applied to commemorate the scheme used by the P51s of the 118th FS in WWII.

Price: \$7.99

1/48th Scale

CED48117 - Tomahawk!

- Curtiss 81A-2 Hawk, 'White 49' flown by Tom Haywood of the 3rd Pursuit Squadron (PS), AVG.
- Curtiss 81A-2 Hawk, 'White 48', flown by 'Tex' Hill of the 2nd PS, AVG.
- Curtiss 81A-2 Hawk, 'White 5', flown by Charles Bond of the 1st PS, AVG.
- Curtiss P-40CU of the 35th PS, 8th Pursuit Group based at Mitchell Field, NY in 1941.

Price: \$8.99

CED48172 - P-40 Warhawk Part 4

- P-40M, 'Miss Julie' flown by Capt. Paul Royner of the 25th FS, 51st FG based at Yunnanyi, China in 1944.
- P-40E flown by Maj. Ed Rector the CO of the 676th FS, 23rd FG based at Kweilin, China in 1942.
- P-40N-15, 'Klawin-Kitten' flown by 1st Lt. Carl Hardy of the 16th FS, 51st FG based in China in 1944.
- P-40N-5 flown by Capt. Wang Kuang Fu of the CACW 7th FS, 3rd FG based at Loahokow, China in 1945.

Price: \$8.99

CED48182 - P-40s American Volunteer Group

- Curtiss 81A-2 (P-40B) flown by Erik Shilling of the 2nd PS, AVG based at Kunming, China in 1942.
- P-40E-1, 'White 106' operated by the AVG in China in May 1942.
- Curtiss 81A-2 Hawk (P-40B), flown by John Newkirk of the 2nd PS, AVG based at Toungoo, Burma in December 1941.
- P-40E-1, flown by R.T. Smith of the AVG based in China in March 1942.

Price: \$8.99

CED48225 - A-10A Black Lightning

This is a scaled-up version of the option previously mentioned on sheet CED72113, but it also offers an additional option as follows.

• A-10A, S/N 80-616 of the 104th

FG, 131st FS based at Barnes Airfield, MA and operated from Aviano, Italy during Operation Deliberate Force

Price: \$8.99

CED48248 - P-59 Airacomet Part 1

- P-59B, S/N 44-22633, 'Reluctant Robot', 11th July 1946.
- XP-59A in its first flight scheme, as flown by Robert Stanley on the 1st October 1942.
- XP-59A, S/N 42-108786 with clipped wings and tail.
- XP-59A, S/N 42-108785 'Superman'.
- P-59A, S/N 44-22614.
- P-59B, S/N 44-22636 of the 412th FG based at Ontario Army Air Base.
- YP-59A, S/N 42-1-8777 fitted with clipped wings and tail.

Price: \$8.99

CED48249 - F/A-18C Hornet's Revenge Part 4

- F/A-18C, BuNo. 164627, '300' flown by Capt David Newland of VFA-15 'Valions'.
- F/A-18C, BuNo. 164261, flown by Cdr Tom 'Walli' Lalor of VFA-105 'Gunslingers'.

Price: \$8.99

CED48251 - F/A-18C Hornet's Revenge Part 5

- F/A-18C, BuNo. 164200, '400' flown by Capt 'Cyrus' Vance of VFA-105 'Gunslingers'.
- F/A-18C, BuNo. 164687, '400' flown by Capt Dave Newland of VFA-87 'War Party'.

Price: \$9.99

CED48252 - F/A-18C/D Hornet's Revenge Part 6

- F/A-18D, BuNo. 163457, '400' flown by Capt T.M. Shoemaker of VFA-106 'Gladiators'.
- F/A-18C, BuNo. 165177, '301'

Price: \$9.99

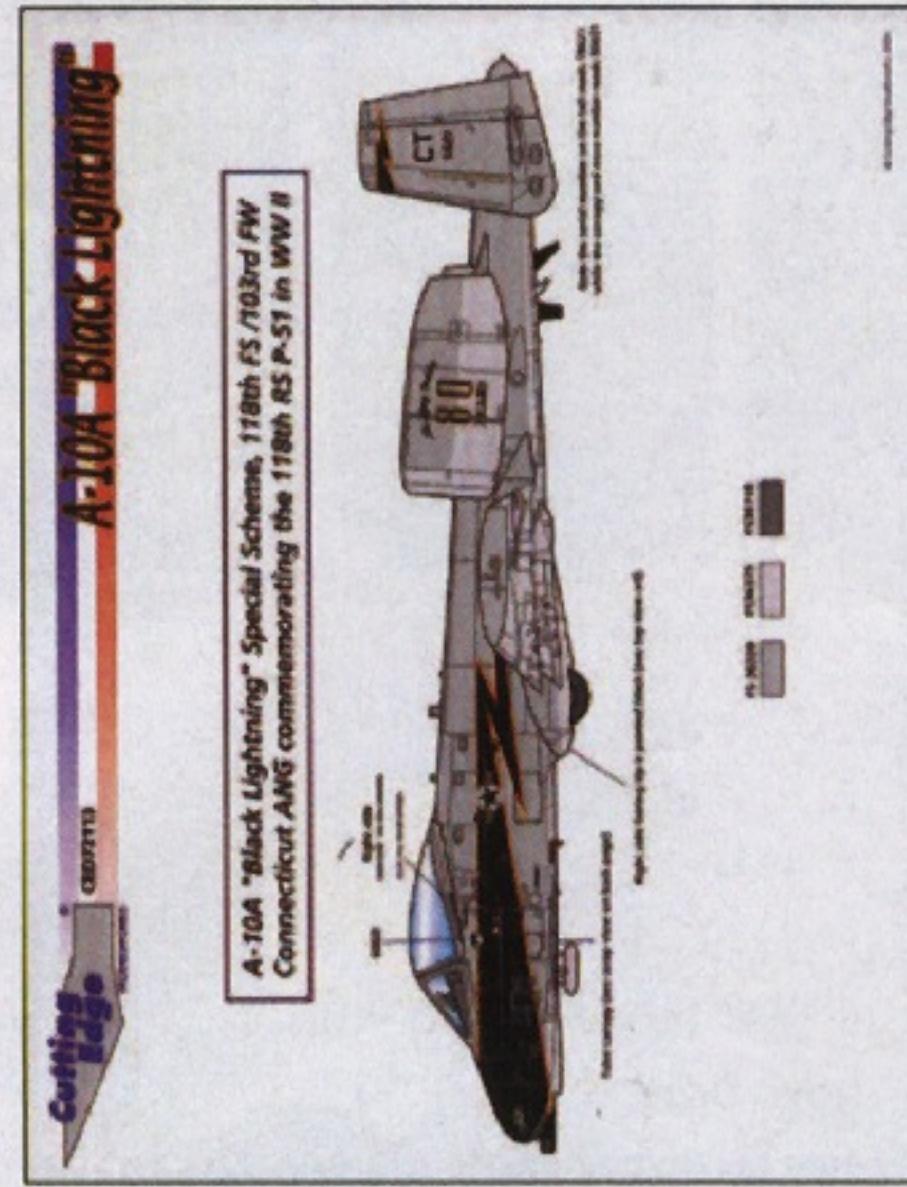
CED48254 - P-59 Airacomet Part 2

- YP-59A, S/N 42-108783, 'Mystic Mistress'.

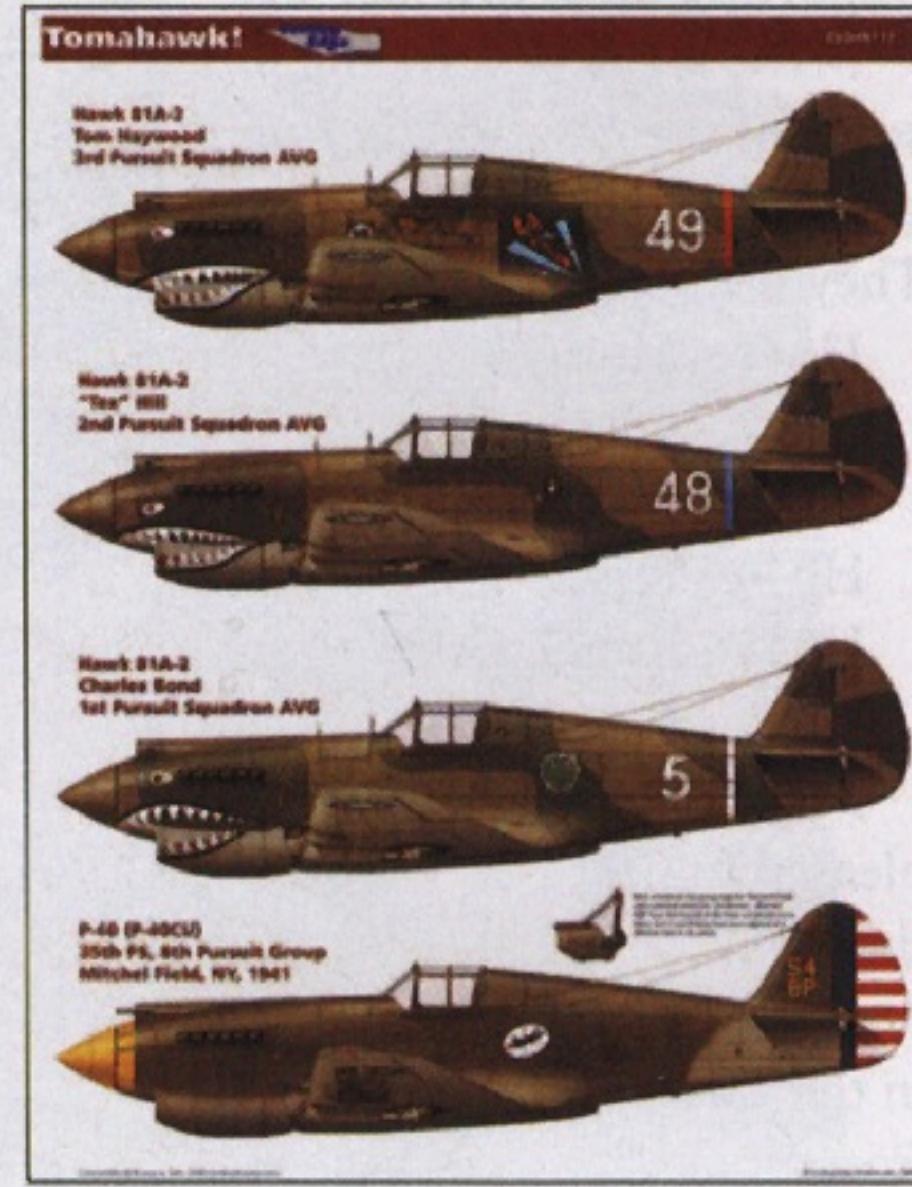
• YP-59A, S/N 42-108783, 'Mystic Mistress' (early version).

• P-59A, S/N 44-22613 flown by Col. David Lee 'Tex' Hill, the CO of

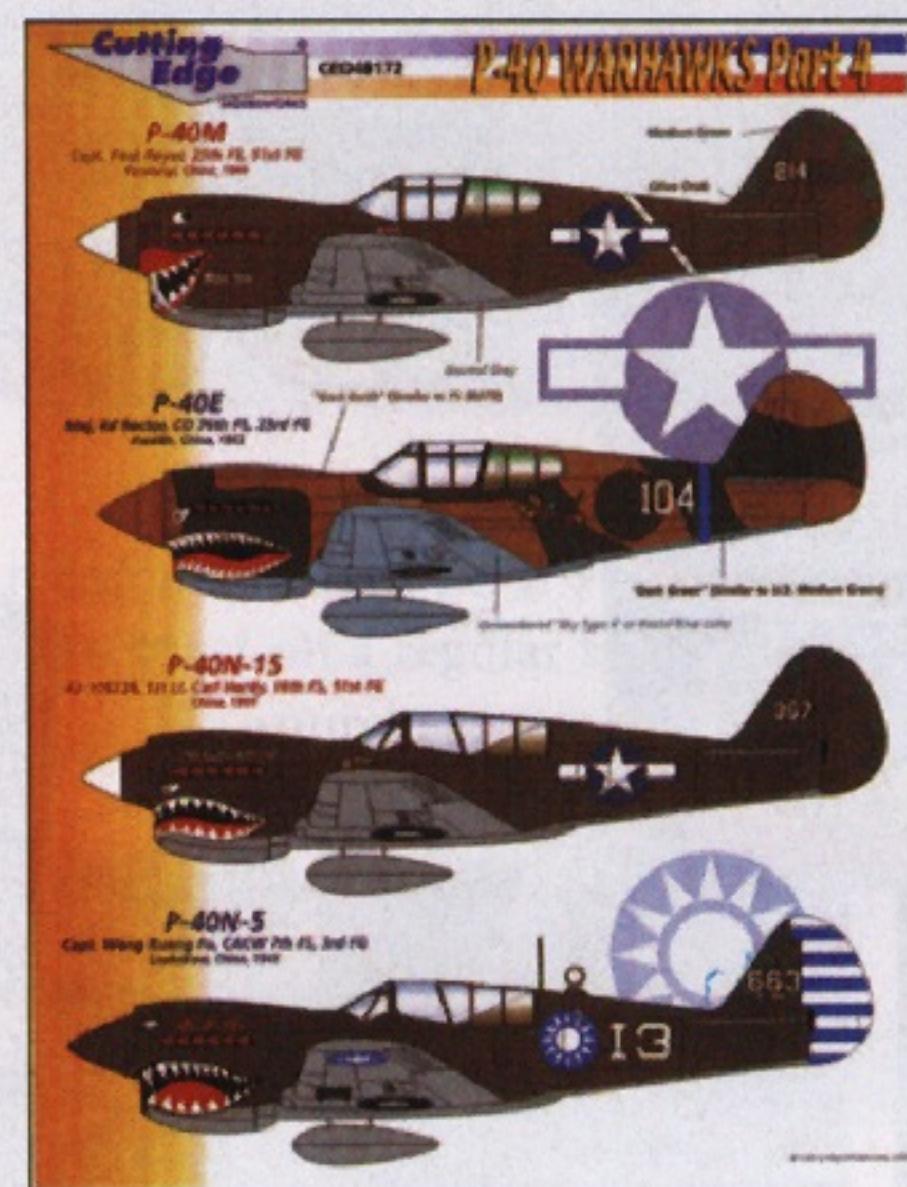
Note: All items for this column are to be sent to:
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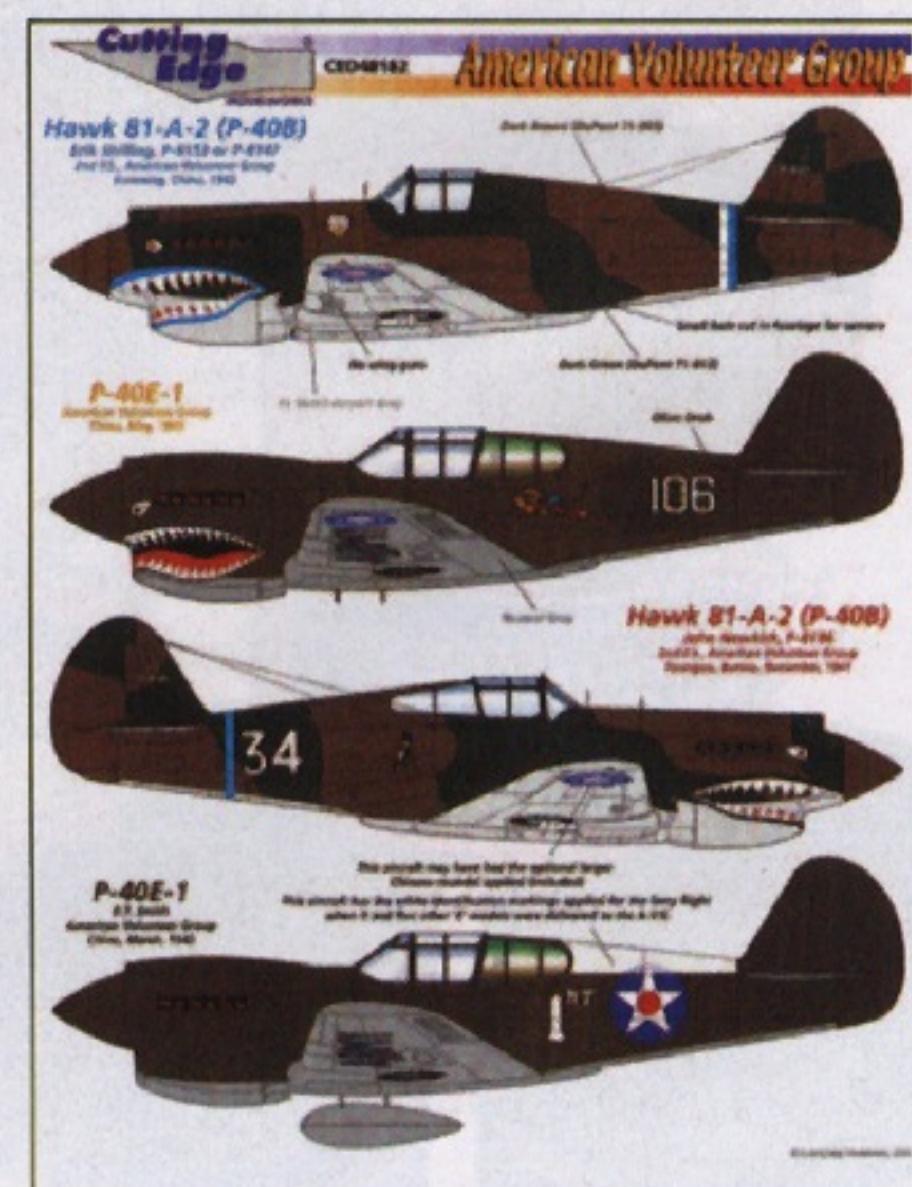
CED72113 A-10A Black Lightning - Cutting Edge Modelworks



CED48117 Tomahawk! - Cutting Edge Modelworks



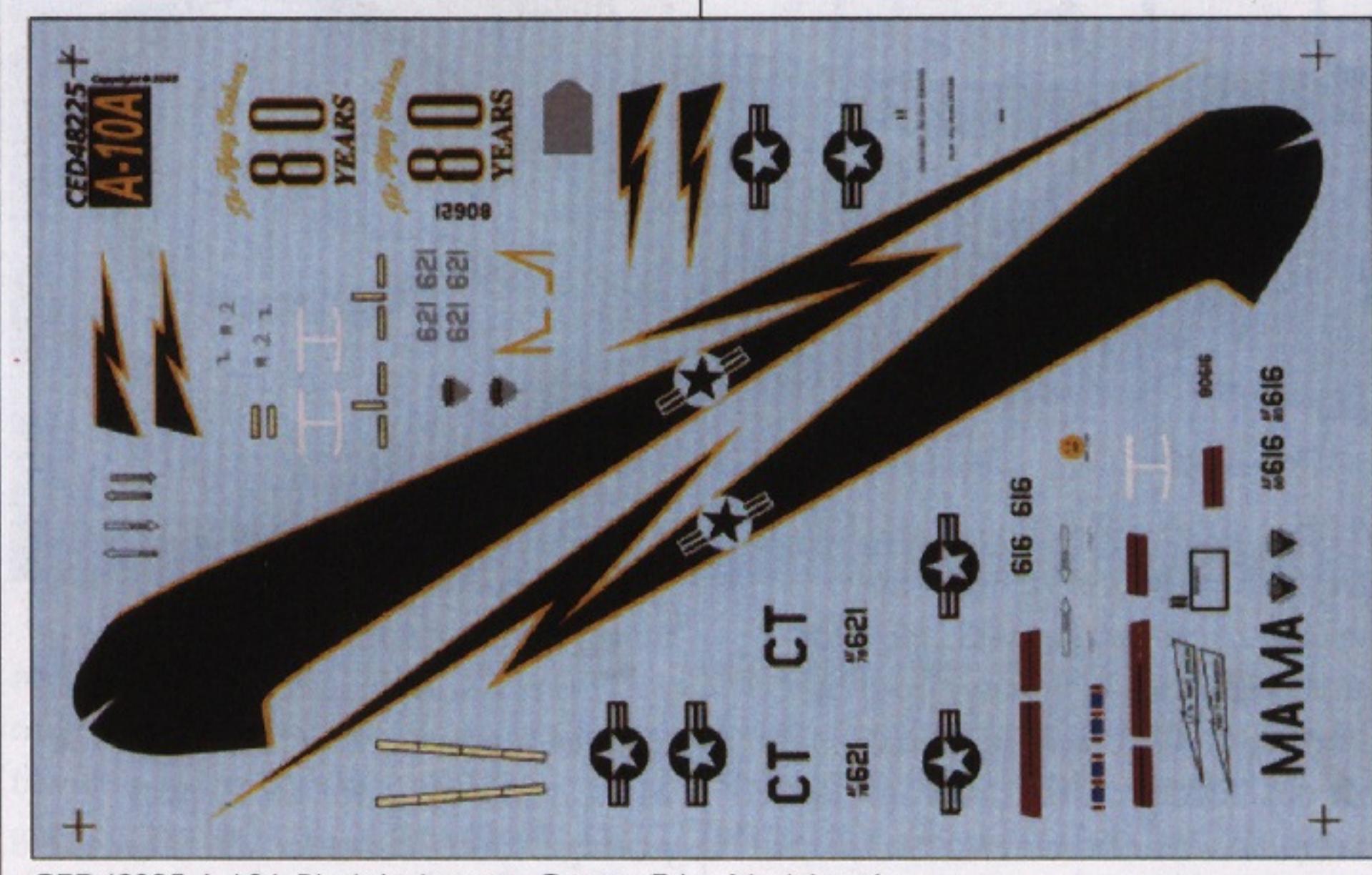
CED48172 P-40 Warhawk Part 4 - Cutting Edge Modelworks



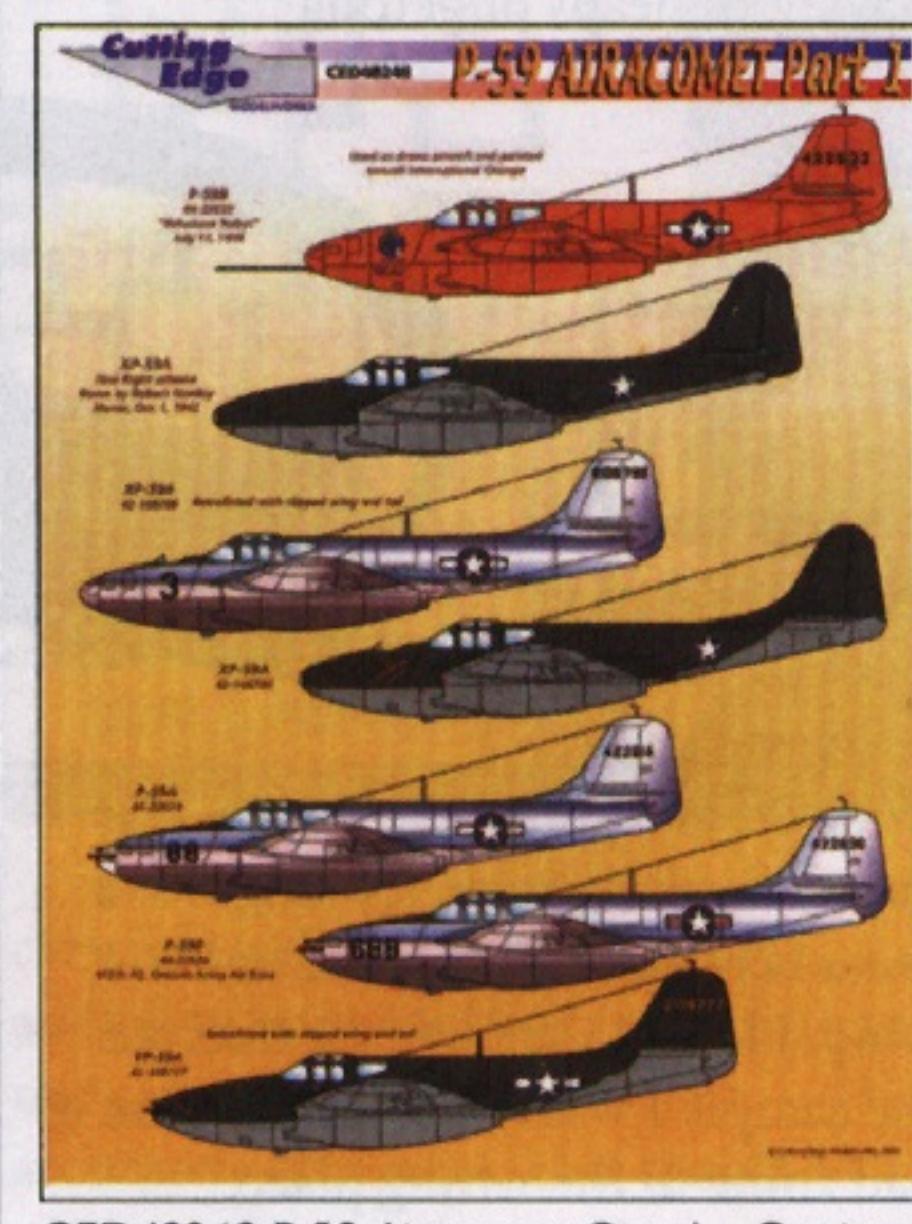
CED48182 P-40s American Volunteer Group - Cutting Edge Modelworks

the 412th FG based at Kern County Airport, Bakersfield, CA in the Spring of 1945.

- P-59A, S/N 44-22610, 'Smokey Stover', which was the first jet to land at Ladd Field Alaska on the 9th December 1944.
- P-59B, S/N 44-22658 (BuNo. 64108) assigned to the USN NATC at Putuxent River on the 19th July 1947.



CED48225 A-10A Black Lightning - Cutting Edge Modelworks



CED48248 P-59 Airacomet Part 1 - Cutting Edge Modelworks

MPD Decals

This is the first time we have reviewed this manufacturer products, although they have been around for a number of years now.

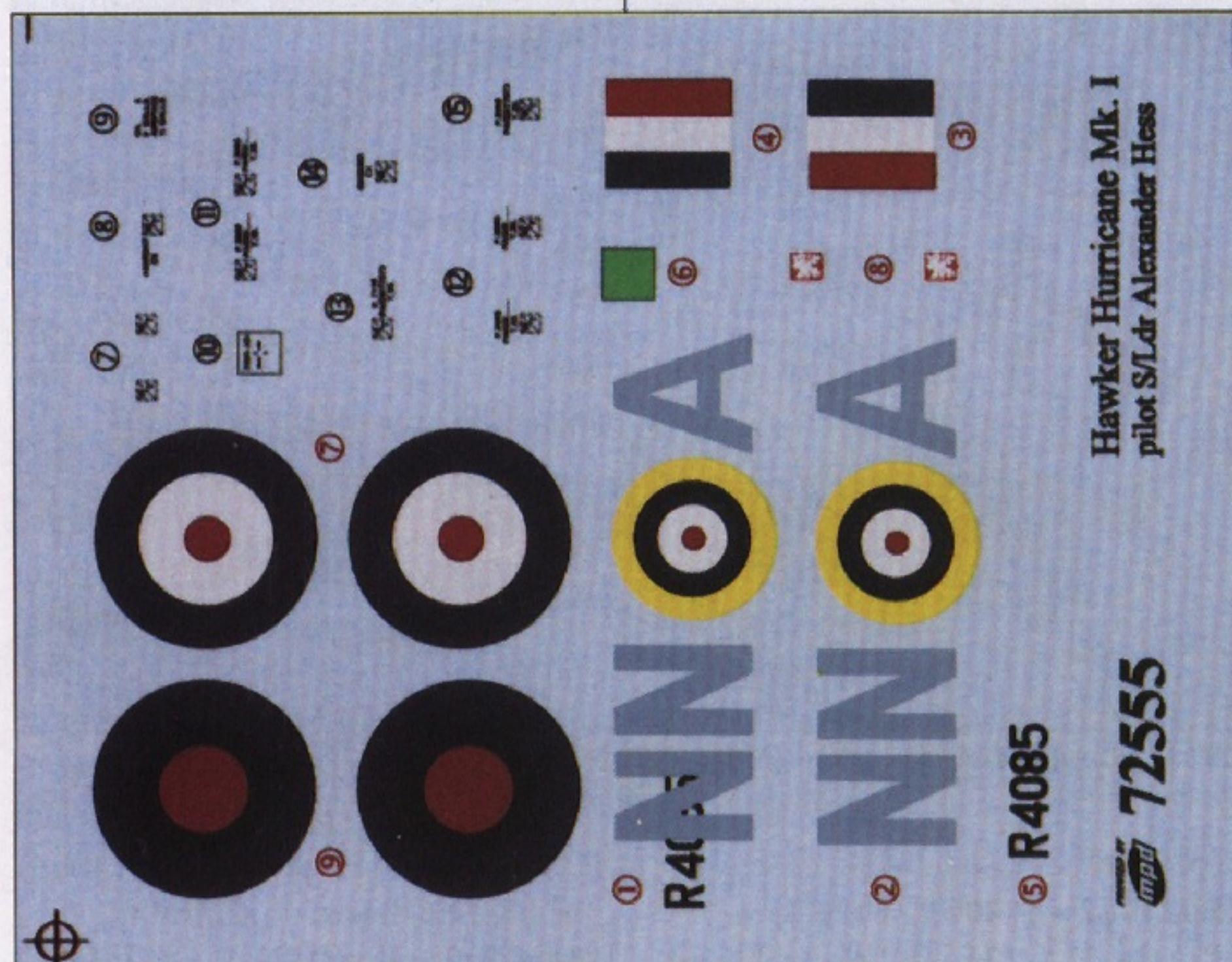
1/72nd Scale

MPD72555 - Hawker Hurricane

- Hawker Hurricane Mk I, R4085, NN-A, flown by Sqn Ldr Alexander Hess of No.310 (Czech) Squadron on the 31st August 1940 when he shot down a Bf 109 and Do 17.

MPD72556 - Vickers Wellington

- Vickers Wellington Mk Ia, L7785, KX-R flown by Sgt Frantisek Taiber of No.311 (Czech) Squadron on the 10th September 1940.



MPD72555 Hawker Hurricane - MPD

MPD72557 - Boeing B-29

Superfortress

- B-29A, 'Dearly Beloved', S/No. 44-70069 of the 40th BS, 6th BG flown by Capt J.U. Kubicek on the 19th June 1945 during a daylight raid on Japan.

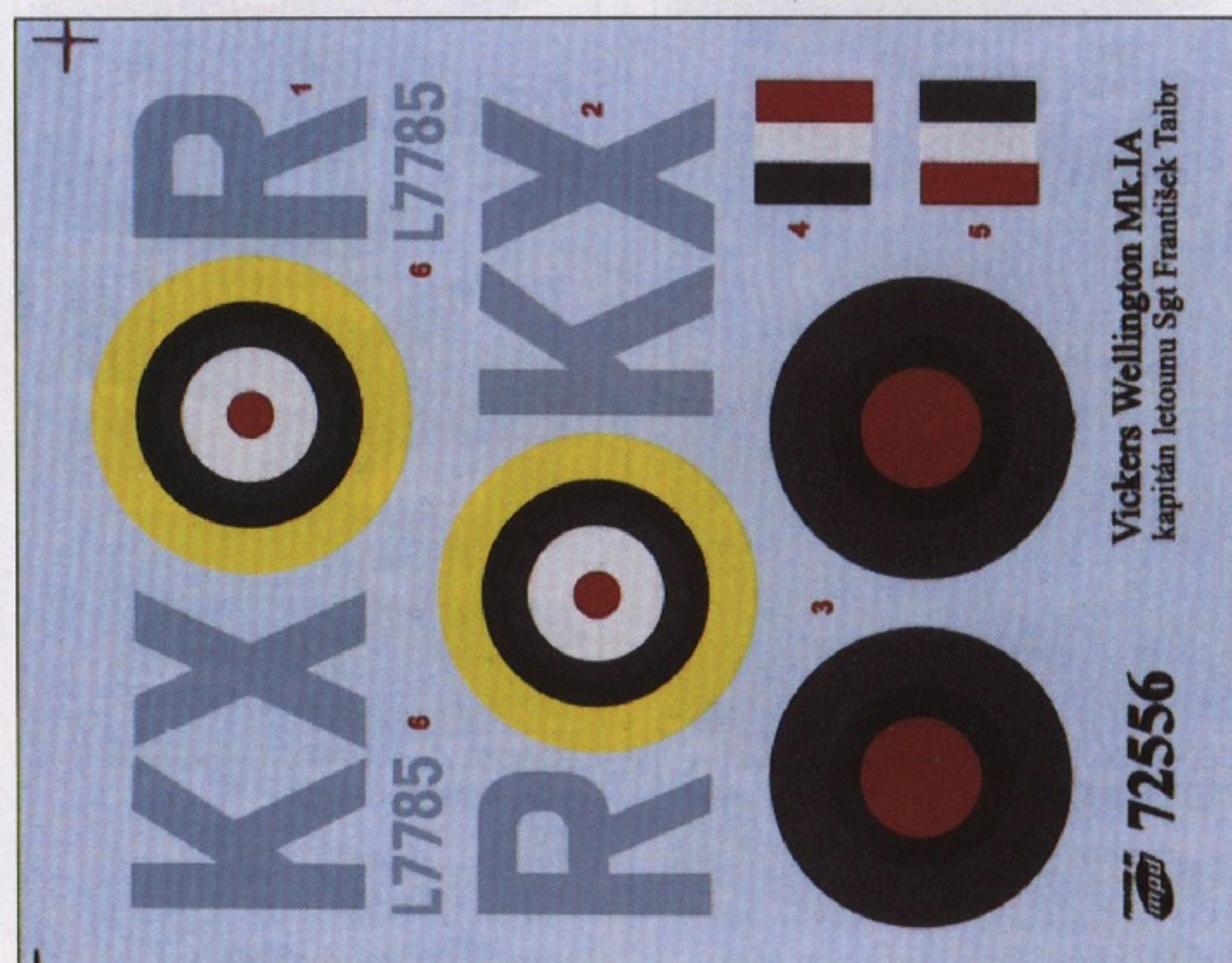
Conclusion

These are simple yet effective sheets. It is unusual to see single-subject decals nowadays, and although these have very limited English instructions they are well printed and can therefore be recommended.

Our thanks to MPD for the review samples.



MPD72557 Boeing B-29 Superfortress - MPD



MPD72556 Vickers Wellington - MPD

Yellowhammer Models

This range is part of the Meteor Productions (Cutting Edge) stable and samples of their latest release have been sent directly to us for review.

1/72nd Scale

YHD72003 - F-4J VX-4 & VF-84

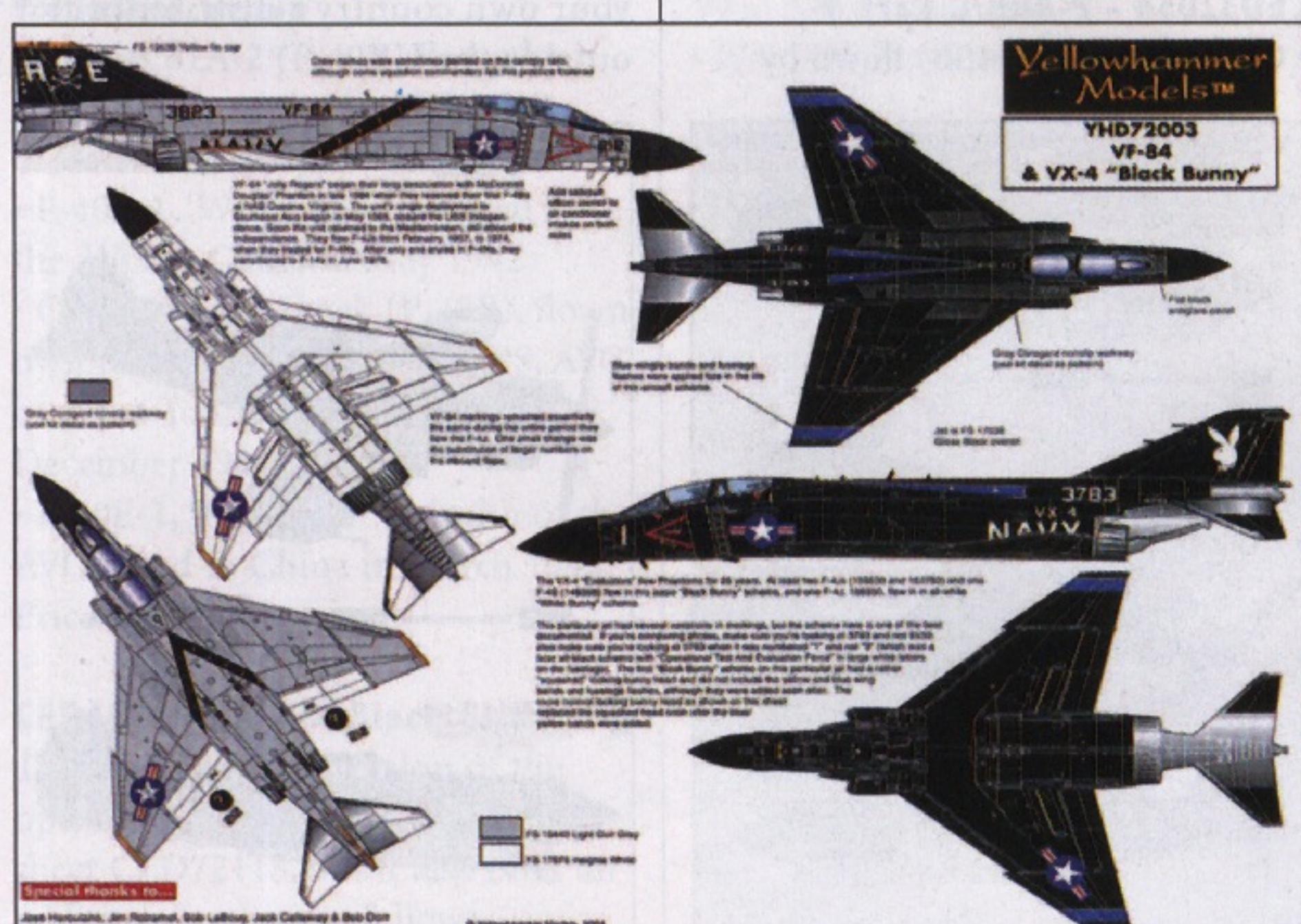
- F-4J, BuNo. 153783 'Black Bunny' of VX-4 'Evaluators'.
- F-4J, BuNo. 153823 of VF-84 'Jolly'.

Rogers' on USS Roosevelt. Price: \$8.99

Conclusion

These sheets will appeal to many an F-4 aficionado and they are therefore highly recommended.

UK source Hannants. Contact Meteor Productions for details of your local country's distributor if you are outside of the UK.



YHD72003 F-4J VX-4 & VF-84 - Yellowhammer

Aviation Workshop

This month sees a couple of new sheets from this manufacturer, samples of which were passed directly to us for review.

1/72nd Scale

MA-72115 - The BAe Hawk in Worldwide Service

This sheet offers schemes for the following nation's hawks.

- Abu Dhabi
- Indonesia
- Kenya
- Kuwait
- Malaysia
- Oman
- Saudi Arabia
- South Korea
- Zimbabwe

The instructions with this sheet only give general details so if you need more specific information you will have to purchase the On Target Profile on the subject.

MAS-729001 - Dragon Hawk

- BAe Hawk T Mk 1, XX172 of the St Athan Station Flight in 1995.
- BAe Hawk T Mk 1, XX172 of the St Athan Station Flight in 2001.



MA-72115 The BAe Hawk in Worldwide Service - The Aviation Workshop

Both carry prominent 'dragon' artwork on the fuselage sides, although the former is in the red, white and blue trainer scheme of the era, while the latter is in the current overall black trainer scheme.

MAS-729002 - Tornado F.3 2000 Display Aircraft

- Tornado F.3, ZE339 of No.56 (R)



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February Release

March Release

- 48147 Birds of Prey Pt. I P-40's)
- 48149 Last of the Wild Weasels (F-4G's)
- 48150 Best Sellers, VietNam Warriors Pt. I
- 48152 Best Sellers, Israeli Baraks (F-16's) Pt I
- IP4812 Blue Nose Birds of Bodney (P51's) Pt. VI
- 32058 Too Little, Too Late BF-109K4 Pt. II
- 32059 Battle of Britain Aces Pt. I (Bf-109E)
- 24004 Gustavs... for the Trumpeter Bf-109 G-6
- 24005 Gustavs... for the Trumpeter Bf-109 G-6
- 24006 Gustavs... for the Trumpeter Bf-109 G-6
- 48-655 Yellow Nose Mustangs of the 361st FG. (Pt. I)
- 48-656 Yellow Nose Mustangs of the 361st FG. (Pt. II)
- 32-015 Yellow Nose Mustangs of the 361st FG.

- 48148 Birds of Prey Pt. II (P-40's)
- 48151 Best Sellers, VietNam Warriors Pt. II
- 48153 Best Sellers, Israeli Baraks (F-16's) Pt II
- IP4811 Blue Nose Birds of Bodney (P51's) Pt. V
- 32053 Sturm Vogel Pt. I (Me 262)
- 32054 Sturm Vogel Pt. II (Me 262)
- 32055 Komet Pt. I (Me-163)
- 32056 Komet Pt. II (Me-163)
- 48-657 Yellow Nose Mustangs of the 361st FG. Pt. III
- 48-658 Shooting Stars over Korea Pt. III
- 48-661 Luftwaffe Medium Bombers Pt. III Ju 188/Do217
- 48-662 Luftwaffe Medium Bombers Pt. IV Ju 188/Do217
- 72-207 Yellow Nose Mustangs of the 361st FG. Pt. I



Lots is happening in AMD/ESP. Last month we introduced at Nuremberg (see photos of our stand on our WebSite) our next three kits. Yes, 3 kits. They are the Kit 004 FJ-4B Fury with Bull Pup Missiles and beautiful new decals. Kit 006 F3H-2M Demon with very colorful markings for VF-122 and VF-124. Last but not least is the Kit 005 Supermarine Seafire MK46/47 with complete Griffon engine, cockpit interior and wing fold. All these kits to 1/48 scale.

The resin is beautifully crafted by **Aires**, to their usual wonderfully delicate standards. (Wait until you see the Demon exhaust nozzle!). Our decals add the final touch to these 3 beautiful models, and what a job Cartograf and MQM did for us. The Seafire is based on the Airfix Seafire 46/47 kit. However, these three kits are not ready for delivery as yet, and you may have to wait a couple of weeks. But I believe you will agree that the wait was worth it.

Please be patient. We will advise you very soon of availability.

Also available now are numbers 3 and 4 of our 1/32nd scale cockpit sets by CMK. We are talking about the GPP 32003 P-51D Mustang and GPP 32004 BF-109E Emil. Photos are available on our WebSite at www.aeromaster.com

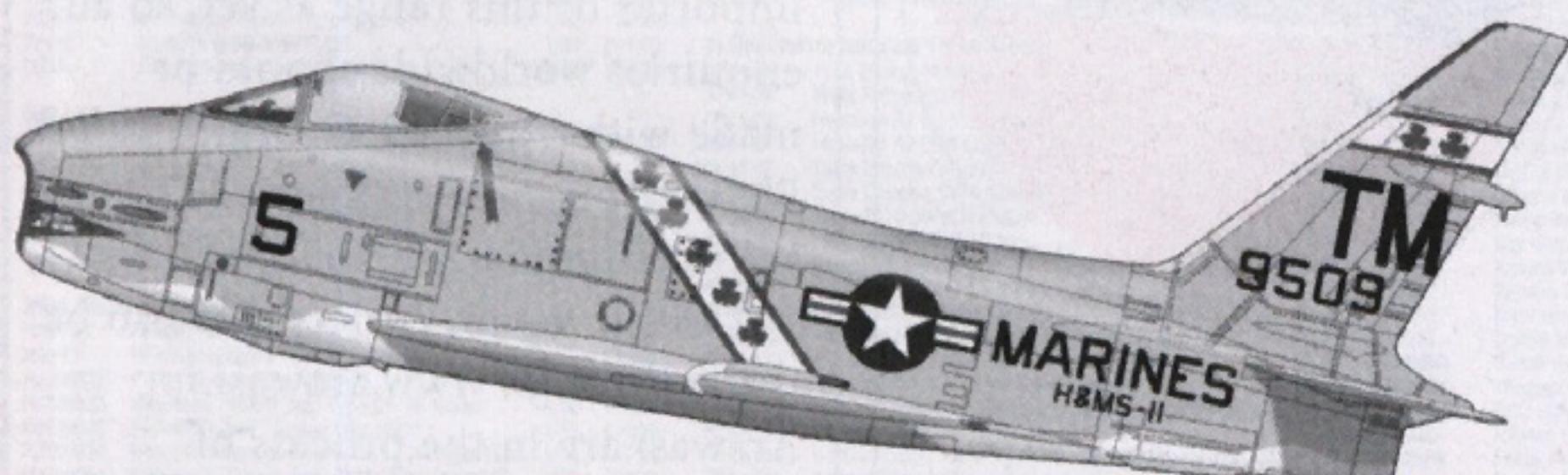
They both include all the necessary resin parts, photo etch instrument panel and acetate instrument dials, plus more. The BF-109E has a beautiful Falcon Canopy (one all closed and another one open) with the front windshield/cowling panel correcting one of the kits main problems. To complement our 4 current 1/32 cockpit sets as promised, we just released a P-51D and BF-109E decal set for each aircraft and next month we will have 2 sheets each for the Me-262 and Me-163, plus another one for the Emil. Well, you can see we have been very busy and enjoyed every bit of it.

We just received a very large shipment of Aires goods and all your needs should be available through your local shops, distributors, mail order houses or from our WebSite at www.aeromaster.com

We cordially invite you to visit our site and if you do not have a computer, we urge you to get one of your friends (I am sure you MUST have at least one friend with a computer) to run you through our WebSite at www.aeromaster.com and really see how our extensive line of decals, accessories and now new kits can further increase the enjoyment of your hobby, all in full color. Give our products a shot. We are sure you will like us.

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Squadron 'Firebirds' as seen during the 2000 display season.

Price: £7.50

Conclusion

The first sheet has been printed by The Fantasy Printshop, while the remainder have been done by Colourslide, so their overall quality and 'user friendliness' is assured. The lack of instructions in the first set is annoying, but it is designed to accompany one of their books so you can't really blame them for that. The other two are nice colour display schemes and they always prove popular with modellers. Recommended to all.

Our thanks to The Aviation Workshop for the review samples.



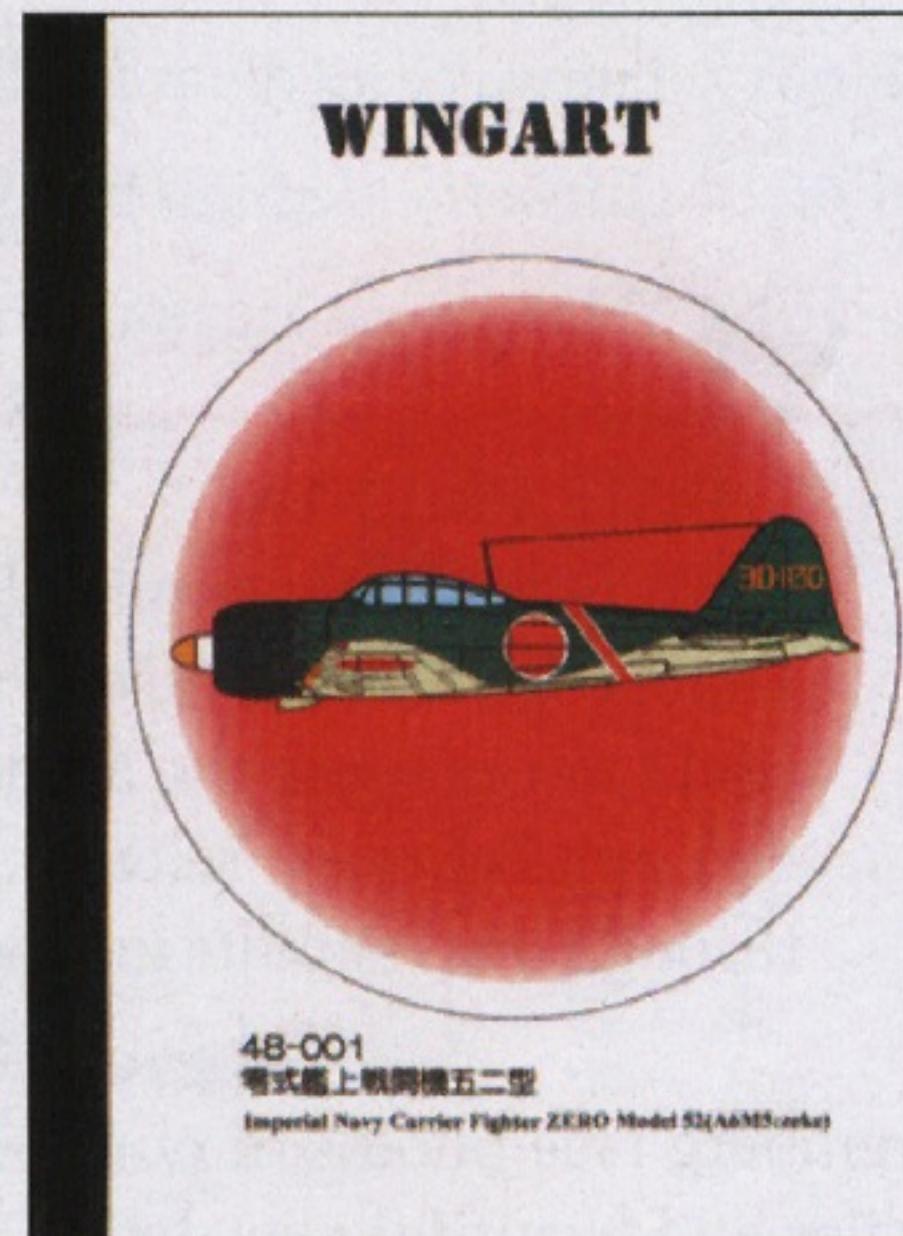
Wingart

This is a new name from Japan and samples of a couple of their first sheets have been sent directly to us to review this month.

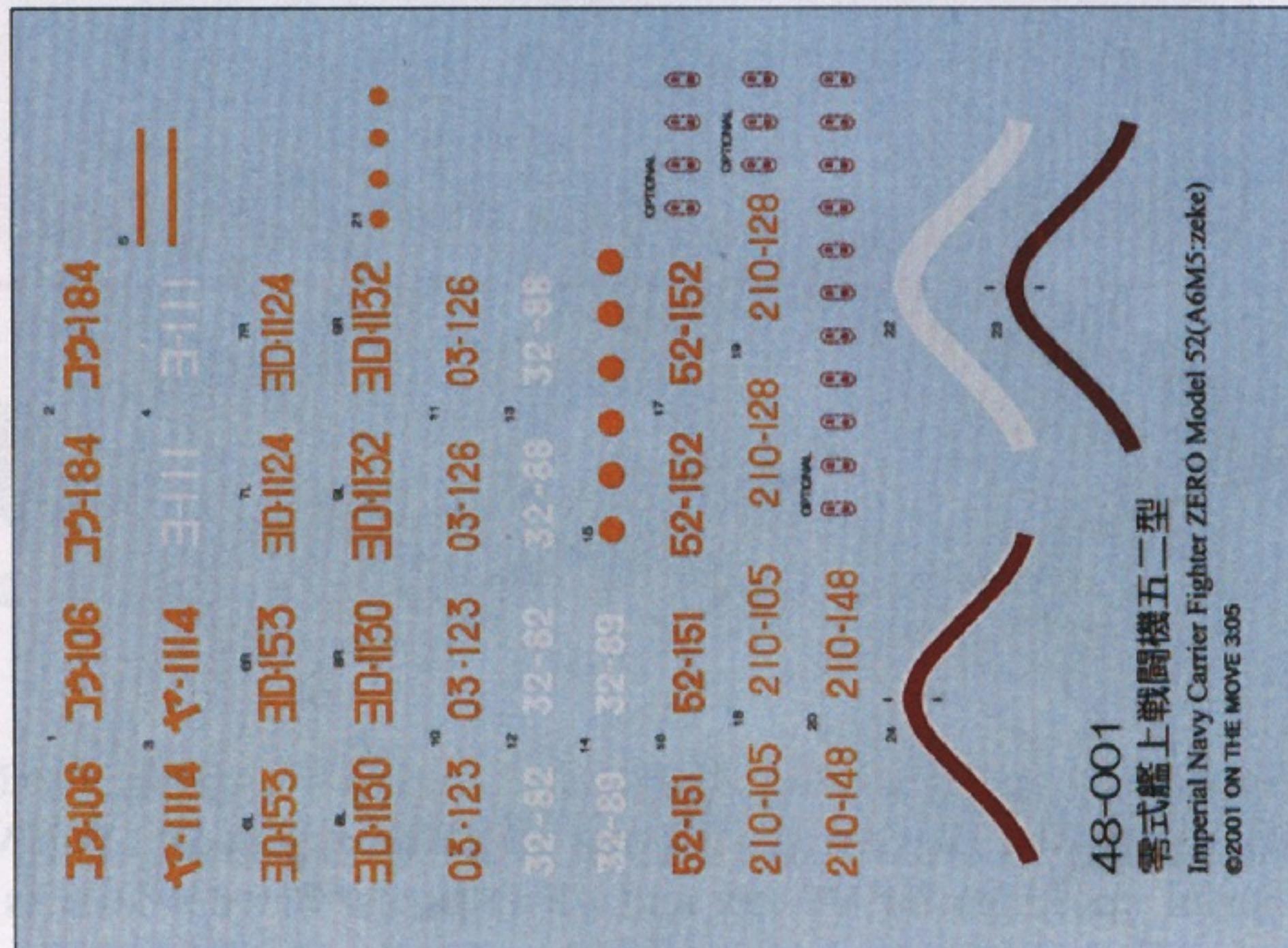
48-001 - Imperial Navy Carrier Fighter Zero Type 52

I can't go into much detail about this sheet other than to say it offers schemes for eighteen A6M5s. This is simply because all the instructions in the accompany booklet are in Japanese. The manufacturer assures us that they are working on an English translation, so hopefully that will not be far down the line.

The packaging of this item is very much like the old AeroMaster 'specials' with a booklet that has clear plastic covers and a plastic spine and the decals themselves. This latter item contains all the unique markings for each option, but no national insignia.



48-001 Imperial Navy Carrier Fighter Zero Type 52 - Wingart



48-001 Imperial Navy Carrier Fighter Zero Type 52 - Wingart

48-006 - 'Judy in the Dark'

This sheet deals with the D4Y Judy in its night fighter role and there are just twelve options this time. Once again in our sample



48-006 'Judy in the Dark' - Wingart



48-006 'Judy in the Dark' - Wingart

Conclusion

Our assessment is a little restricted due to the language barrier put up by the instructions but with that aside the quality of presentation, packaging and production is typically Japanese. In this I mean it all speaks of quality and having used many sheets of decals from Japanese manufacturers in the past I can see that these are easily as good, if not better.

Once English language versions are produced the appeal of these sheets will greatly increase and I have no reservations in recommending them most highly to all Japanese aircraft fans.

Our thanks to Wingart for the review samples. There is no UK importer of this range as yet, so all enquiries worldwide should be made with Arawasi, George Eleftheriou, 1-22-8, Room 202, Yahirō, Sumida-Ku, Tokyo 131-0041, Japan. Orders can also be made through www.arawasi.jp. Arawasi are in the process of translating the booklets that come with the WingArt decals, for provision with future orders.

Linden Hill Decals

It has been quite a while since we have seen anything from this manufacturer, so the arrival of the below listed new sheets is most welcome.

1/72nd Scale

LHDS7201 - 'Heraldic Bears'

- Tu-95MS, 'Red 10' ('Saratov') of the 182nd Heavy Bomber Regiment (TBAP) based at Engels AB
- Tu-95, 'Red 08' ('Smolensk') of the 182nd Guards Heavy Bomber Regiment, Ukrainian Air Force, Uzin AB, 1996.
- Tu-95MS, 'Red 20' ('Ryazan') of the 43rd Combat & Conversion Training Centre (TsBPIPLS) based at Dyagilevo AB.

The sheet also offers a bonus decal option for a Tu-160 ('Red 18') of the Ukrainian Air Force

The sheet offers one set of Russian and Ukrainian national insignia plus all the unique markings for each option (no stencils).

1/48th Scale

LHD48006 - Mil Mi-24, 25 & 35 in Worldwide Service

- Mi-24P, 'Red 23', 262nd Independent Helicopter Squadron (OVE), 40th Army Air Arm based at Bagram AB, Afghanistan, 1998.
- Mi-24V, 'Yellow 05' of the 262nd OVE based at Bagram AB, Afghanistan, 1988.
- Mi-24P 'Perch' photographed at Grozny North Airport in 1999.
- Mi-24P 'Shark' photographed at Grozny North Airport in 2000.
- Mi-24K, 'Black 130' of the 17th Ukrainian Helicopter Squadron based at Klisa Airport as part of a UN contingent in 1996.
- Mi-24K, 'Black 132' of the 17th Ukrainian Helicopter Squadron based at Klisa Airport as part of a UN contingent in 1996.
- Mi-35, 'Black 101' of Ahmed Shah Massoud's anti-Taliban 'Northern

Alliance' based in the Panjshir Valley in 2000-1.

- Mi-24D, 'Black 317' of the 373rd Air Transport Regiment, Afghan AF prior to 1979.
- Mi-24V of the 29th Helicopter Combat Squadron, Croatian AF based at Pleso in the 1990s.
- Mi-24V, 'Black 204' of the 102nd Combat Helicopter Squadron of the Macedonian AF based at Petrovec AB in 2001.
- Mi-24V, 'Black 0705' of the 331st 'Tiger' Attack Helicopter Squadron, Czech AF based at Prerov in 1998.
- Mi-24D, 'White 103' of the 23rd Helicopter Base of Helicopters (VABV), Bulgarian AF based at Stara Zagora.
- Mi-24D, 'White 122' of the 23rd Helicopter Base of Helicopters (VABV), Bulgarian AF based at Stara Zagora. This machine is in the 'lizard' scheme applied at the Danubia Plant after overhaul.
- Mi-24D, 'Black 302' of the Libyan AF in the 1980s.

This is a three sheet set and it offers national insignia for each nation as well as all the unique markings for each option (no stencils).

LHD48008 - 'The Swifts' 2003 Paint Scheme

As the title suggests this sheet offers markings for any one of the six MiG-29S' operated by 'The Swifts' display team in the 2003 season. Aircraft '01' and '02' are two-seaters, while '03' through to '06' are single-seaters.

This three-sheet set includes all the unique markings and graphics for one machine, although some complex painting and masking will still be required.



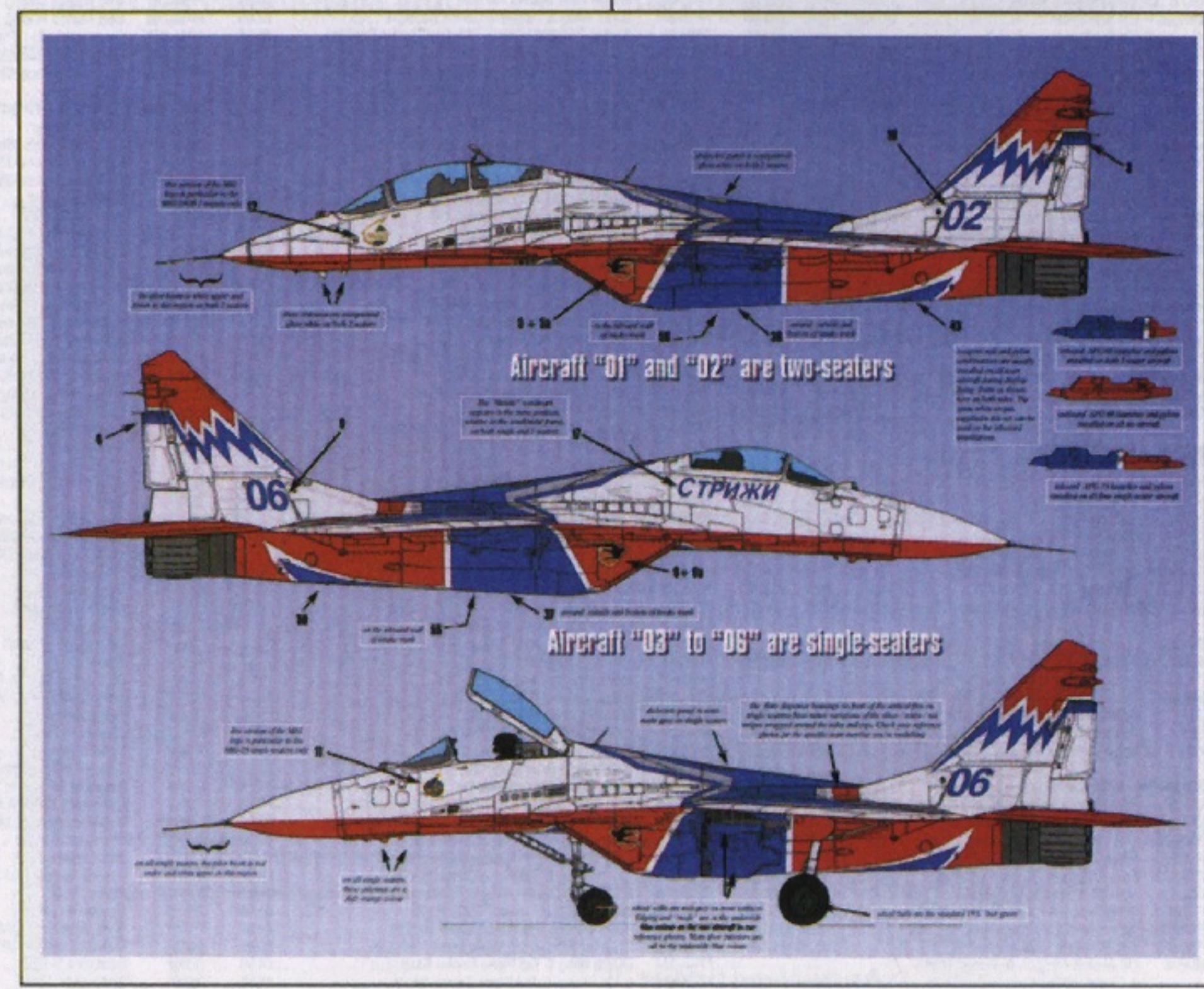
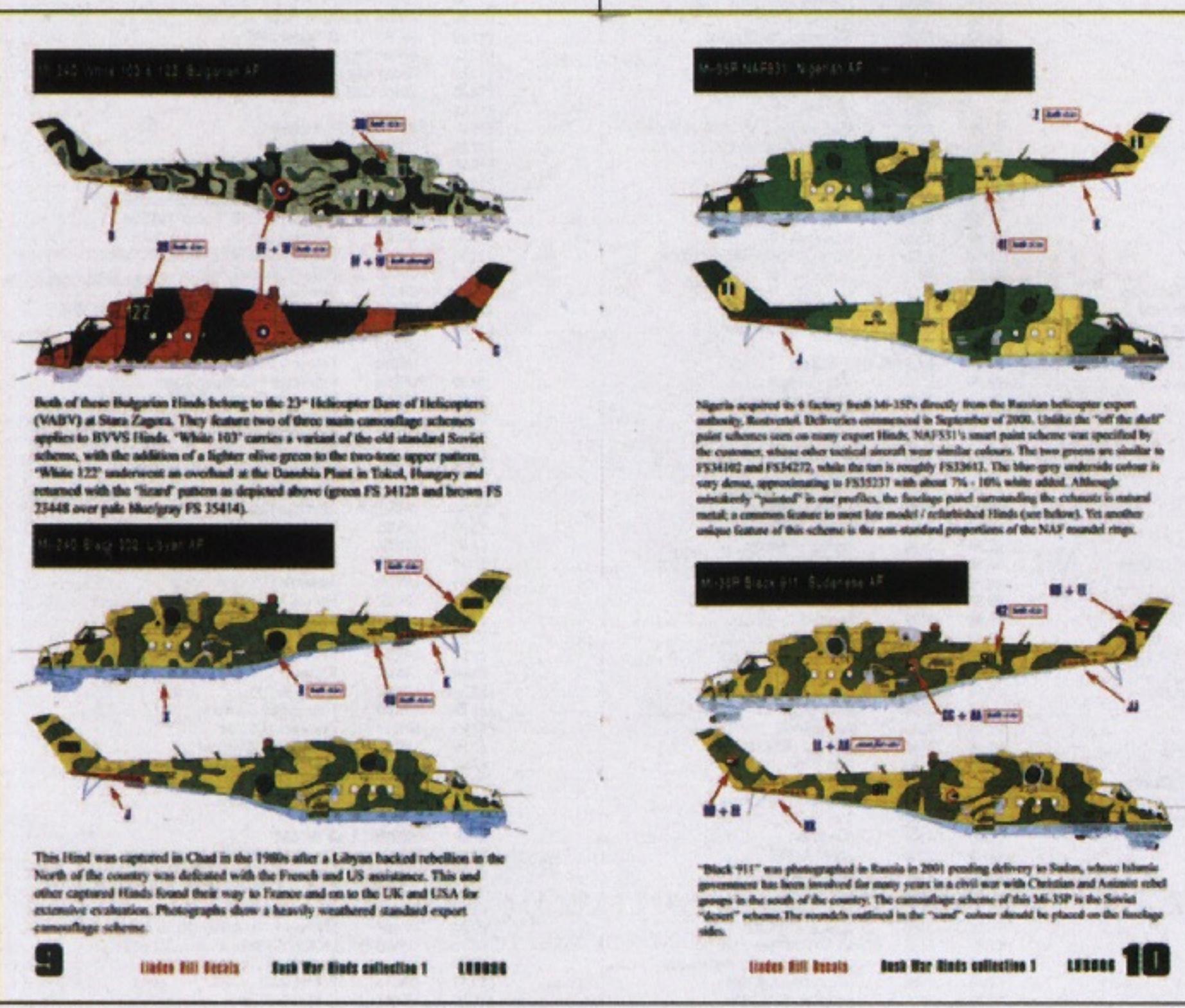
LHDS7201 'Heraldic Bears' - Linden Hill Decals

Conclusions

Linden Hill produce some nice and colourful options for Russian subjects and these three new ones are no exception. They are well printed and come with comprehensive instructions so can

be recommended to all.

Our thanks to Linden Hill Decals for the review samples.



LHD48006 Mil Mi-24, 25 & 35 in Worldwide Service - Linden Hill Decals

LHD48008 'The Swifts' 2003 Paint Scheme - Linden Hill Decals

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1/72nd Scale

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Dog-fighting Dromedary

by Dai Williams

The Sopwith Pup and Sopwith Triplane fighters provided valuable service to both the Royal Flying Corps and the Royal Naval Air Service in the middle years of WWI. These aircraft had done much to redress the balance on the Western Front following the catastrophic appearance of the German Fokker and Albatros tractor aircraft armed with synchronised machine guns firing through the arc of the propeller. However as time went on it became apparent that these aircraft had shortcomings in terms of both overall speed and firepower. The Sopwith Camel appeared in December 1916 in an attempt to address these problems.

The first prototype was powered by a 110hp Clerget engine. It was armed with two fixed Vickers guns which were partially enclosed in a hump-like fairing in the front upper fuselage. This fairing led to the aircraft being given the nickname of 'Camel' which stuck with the aircraft for the rest of the war. The engine,



The box art

guns, ammunition, fuel and pilot were all grouped close together at the front of the fuselage, a feature which allowed maximum manoeuvrability.

Shortly after the appearance of the first prototype, a machine was produced with tapered wings. The wings were linked by plank-like interplane struts in the same manner as the Sopwith Triplane. This aircraft showed no improvement over the more conventional configuration and development was taken no further.

After trials the Camel was ordered in quantity for service use by both the Royal Flying Corps and the Royal Naval Air Service. The first deliveries were made in 1917 and it soon became apparent that the Camel was

a very different machine from its docile and predictable predecessors. It exhibited some tail heaviness in flight which was alleviated somewhat by introducing a cutout into the centre section, a feature which was later to become standard. The Camel's controls were extremely sensitive. This, coupled with the fitting of increasingly powerful rotary engines, made it a formidable dog-fighter in the hands of an experienced pilot. However in the hands of the inexperienced it was unforgiving of mistakes. Given the lamentable training then being given to the men expected to fly the machines, accidents were frequent. Coupled with its vicious flying characteristics, the service introduction of the Camel was not without its problems. There were numerous tail skid failures and there was a disturbing tendency for the port wheel to remove itself from the undercarriage after several landings. There were also problems with the interrupter gear for the guns. The unsatisfactory early versions of the

Kauper gun synchronisation gear used in the first batches rendered them unusable. The rudder looked and was too small to provide enough lateral stability to the aircraft, a problem which persisted throughout the war and was never satisfactorily addressed. These problems meant that while many pilots were very successful with the Camel, it was never as popular with front line units as the earlier Sopwith types.

As well as being deployed on the Western Front, the Camel was used

Sopwith F.I Camel 'RFC'

Scale: 1/48th

Kit No: 8057

Price: £17.99

Panel Lines: Recessed ✓

Status: New Tooling ✓

Type: Injection Moulded Plastic & Nickel-plated Etched Brass

Components: Plastic 89, Clear 5, Etched 6 [Pre-painted]

Also includes: Self-adhesive Painting Masks

Decal Options: 3

Manufacturer: Eduard M.A

Available in UK from: Hannants & LSA Models

by home defence units in order to provide some defence against night time Zeppelin raids. It was discovered that the flash from the two Vickers guns temporarily blinded the pilot. A modified version of the Camel was therefore developed much along the lines of the earlier Sopwith 1 1/2 Strutter conversions, with the pilot's position moved further back in the fuselage, the fuel tank being moved in front of the cockpit and the Vickers guns being replaced by two Lewis guns on Foster mounts on the top wing.

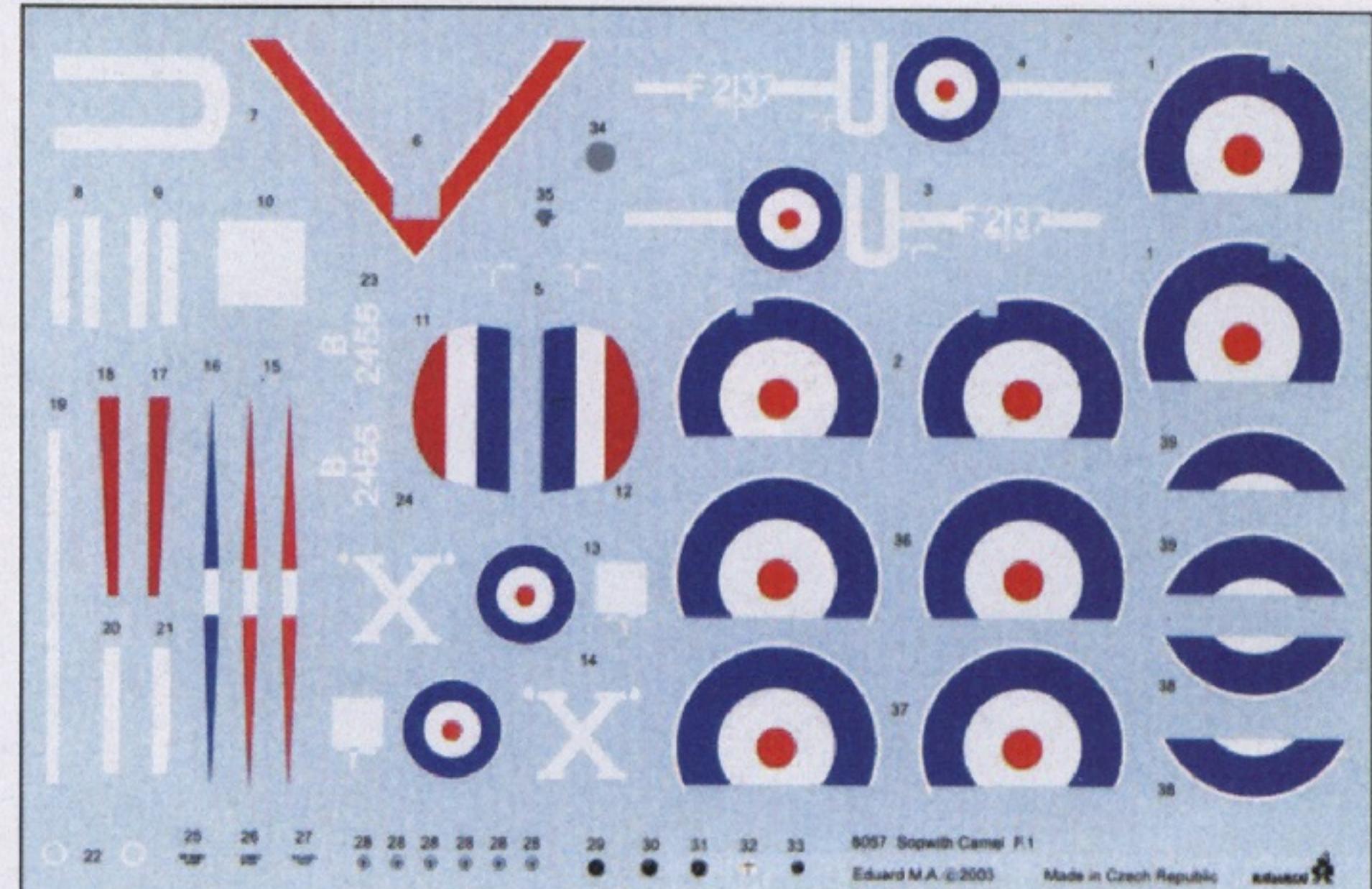
There were a number of other developments of the Camel during the war. These included testing of self sealing fuel tanks and much dangerous work investigating the flying of aircraft from ships at sea. During the later part of the war the Camel was replaced by the Sopwith Snipe and there was little use of the type by the RAF after the end of hostilities. However a number of machines were delivered to Russia and were used in action against the Bolsheviks in the 1920s.

The Kit

The main components of the Eduard kit are presented in the now usual buff coloured plastic. The detail is extremely crisp and as may be expected with new moulds there is no flash to deal with. The first thing that struck me when I looked at the parts was the representation of rib tapes on the wings. This is a prominent feature of many WWI aircraft types and is often ignored by many manufacturers. This is about the best representation of this feature that I have yet seen. The tapes do appear a little prominent however and some modellers may wish to make them a little less obvious by gentle sanding. The rib tapes on the wings appear to me to be rather wide when compared with contemporary photos. This will be a more difficult thing to correct. A rather drastic solution to the problem would be to sand the whole lot away and replace the tapes with strips of transfer film. I have tried this several times on other models and experience has shown that this approach brings its own problems. I decided to leave well alone and hoped that one or more coats of paint would tone down their over-heavy appearance. Other notable features of the kit are the

representation of the wheel spokes behind the fabric wheel covers and the representation of the fabric of the fuselage sides and top stretched over the internal structure - all very impressive indeed.

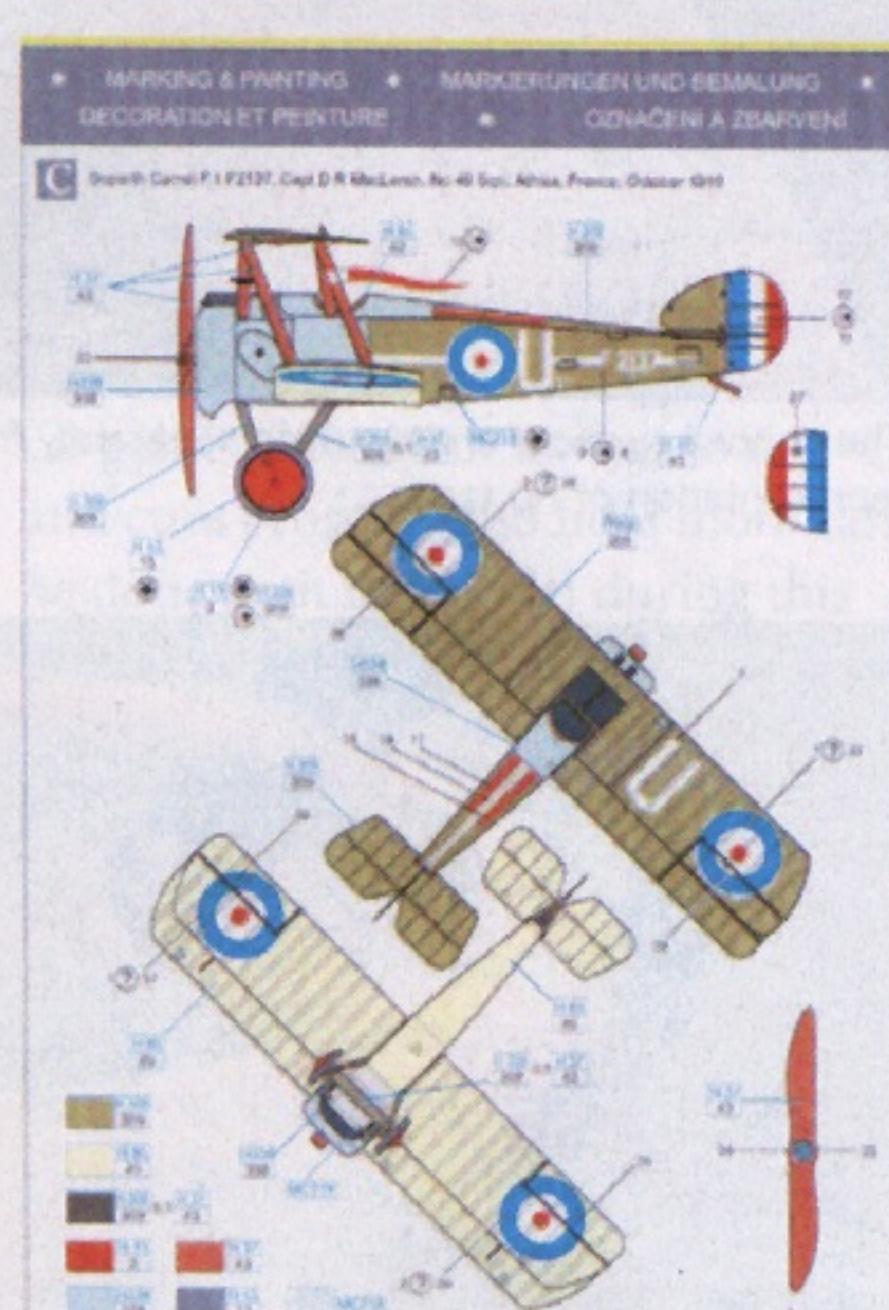
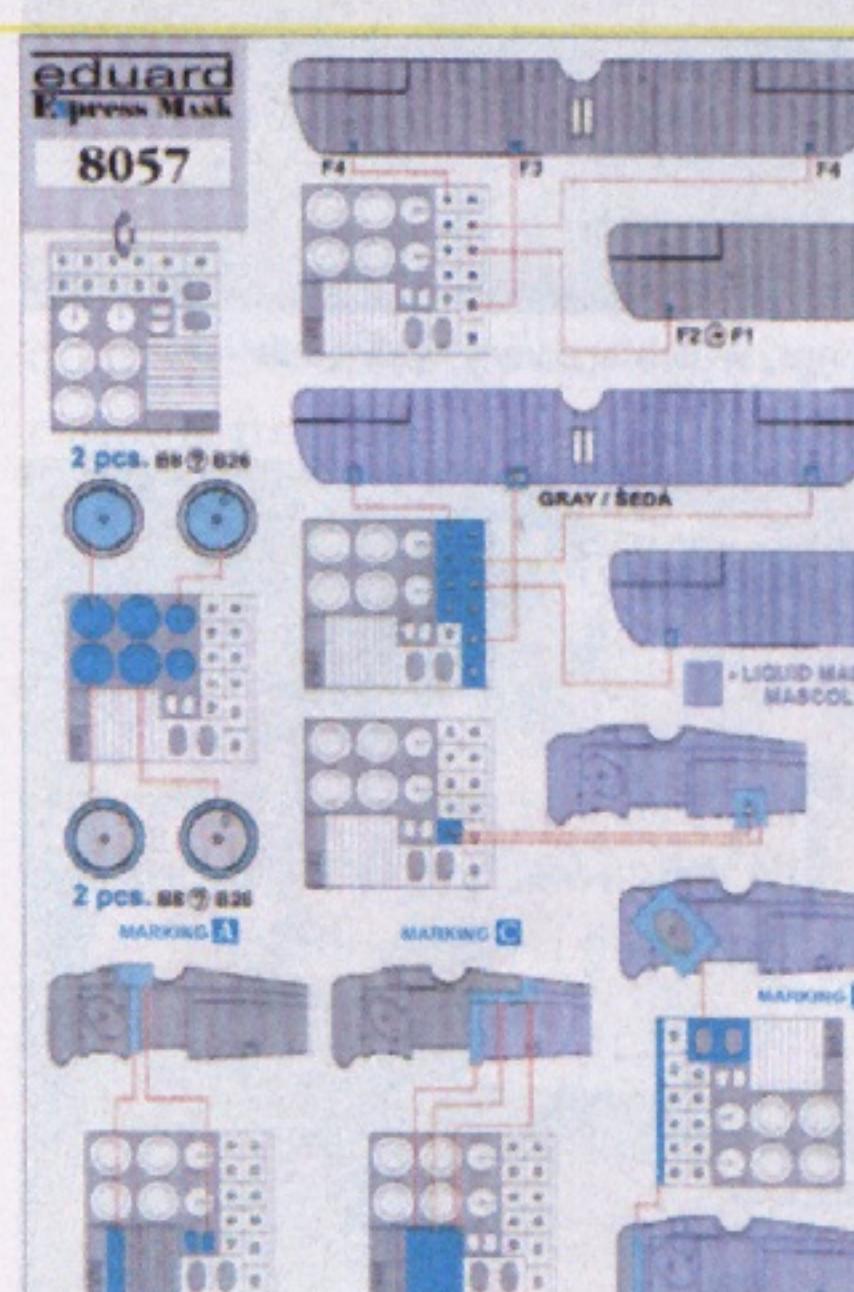
There is a clear fret which contains the inspection panels for the aileron pulleys within the wings. This seems to me a very practical way of representing this often forgotten feature. Roden have taken a rather more extreme approach with some of their 1/48th scale Sopwith 1 1/2 Strutter series by providing the whole wing in clear plastic, but to be fair to them they did have to represent much larger clear areas than are present on the Camel. Two sets of upper wings, two styles of fuselage top deck and two sets of wheels are included to allow different variants of the Camel to be made. There are also two different types of cowling included in the kit but as far as I can see these are just variations on the same theme. There is a hole in the cowling which can either be drilled by the modeller, or incorporated into the final assembly using two separate mouldings.



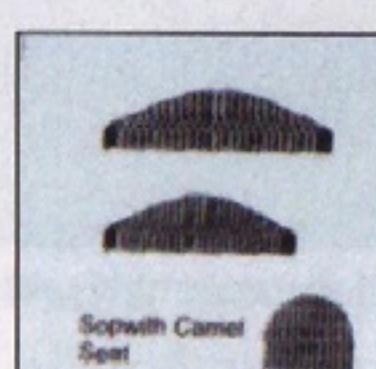
The transfer sheet - nicely in register and the images are very thin

seat belts. Now this is an area where I begin to get really uncomfortable and I feel really guilty about the prospect of using these, don't ask me why but I do. I am quite comfortable about using pre-formed plastic to make a model, and perfectly comfortable about using pre-printed transfers, but somehow using pre-painted components makes me feel as if I am cheating a bit!

The transfer sheet has markings



The coloured instruction sheets



The transfer sheet representing the wicker seat



The pre-painted etched fret

Eduard provide a set of pre-cut masks for use when painting the wheels and several other areas of the model. This is a great aid to modellers but beware they do not have the long-term sticking power of a product like Tamiya tape and they may tend to lift a little after a day or so on the model. I must admit that I feel a little uncomfortable using these items as I feel as if I ought to be able to mask a model for painting all by myself. However there are some areas of model aircraft such as complex cockpit glazing and rounded areas such as wheel hubs where perhaps life is just to short to make your own masks.

Eduard also provide an etched set which contains a set of pre-coloured

for three aircraft, one of which is the famous B7270 flown by Capt. Roy Brown of No.209 Squadron which was involved in the action in which Manfred Von Richthofen was shot down and killed on 21st April 1918. The other two are examples from No.28 Squadron and No.46 Squadron. The transfer sheet is unusual in that it has each wing roundel split into two parts, one portion being attached to the main wing and the other to the ailerons. This caters for the fact that the ailerons are moulded separately from the wings.

The instruction sheet starts with a paint reference chart with Gunze colour numbers being quoted. Tamiya, Humbrol, Revell and Testor's

reference numbers are quoted where available. No less than five different metallic paints are listed as being required to complete the model. This is probably a reflection of the fact that the Camel is a very well known and well documented type and Eduard can be quite precise about the colours used.

There is a parts breakdown diagram, though as the parts are all quite clearly labelled on the sprues this is not really necessary. It is actually rather confusing as sprue B on the parts layout was actually labelled C on the sprue itself on my example of the kit. This is followed by nine pages of assembly instructions. This may seem like a lot but the assembly diagrams are large and clear with only a few parts being involved per stage, which is useful as the interior of the aircraft is quite complex. There is a rigging diagram and all these sheets are printed using a number of colours to make things clear - particularly useful at the rigging stage.

The sheet showing the placement of the pre-cut masks is also in colour. In conjunction with the masks Eduard suggest using liquid masking fluid for quite large areas of the model. I'm sure that tape would be a more practical alternative here, otherwise you will end up using buckets of the stuff to complete the painting job if used as suggested. The three colour options are presented on separate sheets as coloured diagrams, once again a very nice touch.

Oddly, Eduard have dispensed with the usual brief description and history of the machine. Again this may be a reflection of the fact that the Camel is such a well known and well documented type.

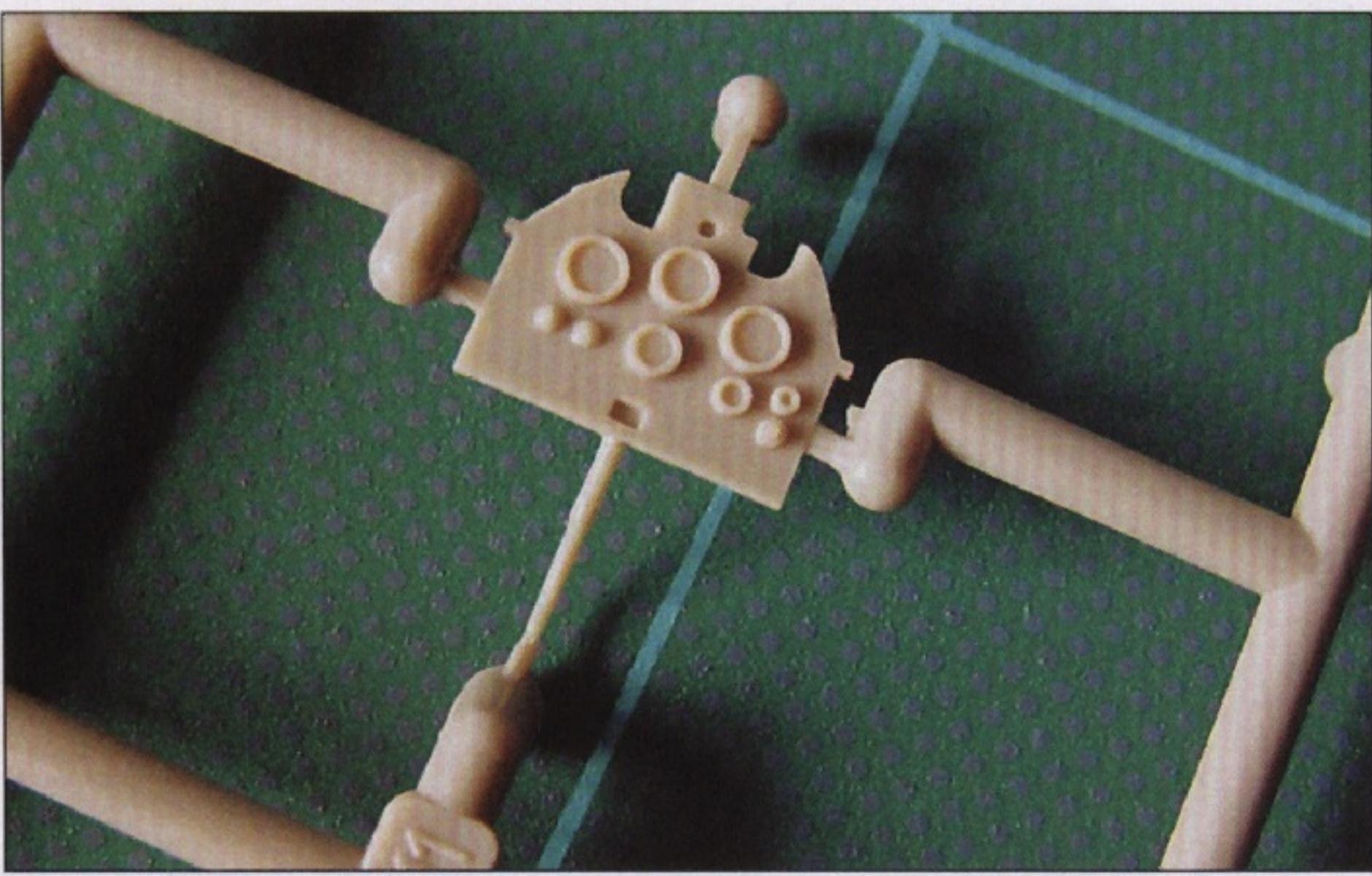
Assembly

The first job as always is to check the parts against published plans. Those chosen were from the Windsock publication (No 26). The outlines of all the main components match these plans pretty much exactly.

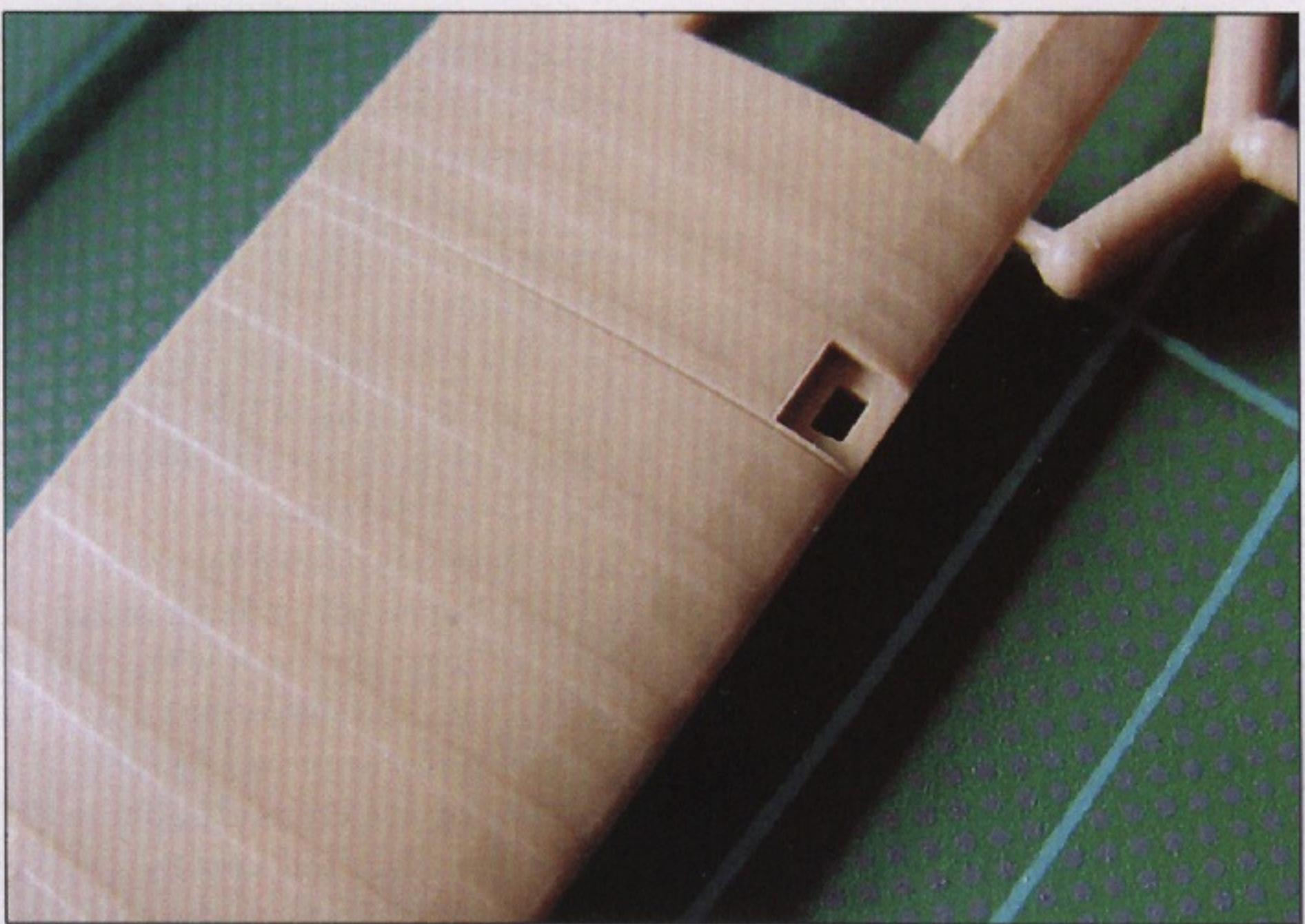
I chose to model the example from No.46 Squadron though this choice does not really need to be made until later on in the

Sopwith F.1 Camel 'RNAs'

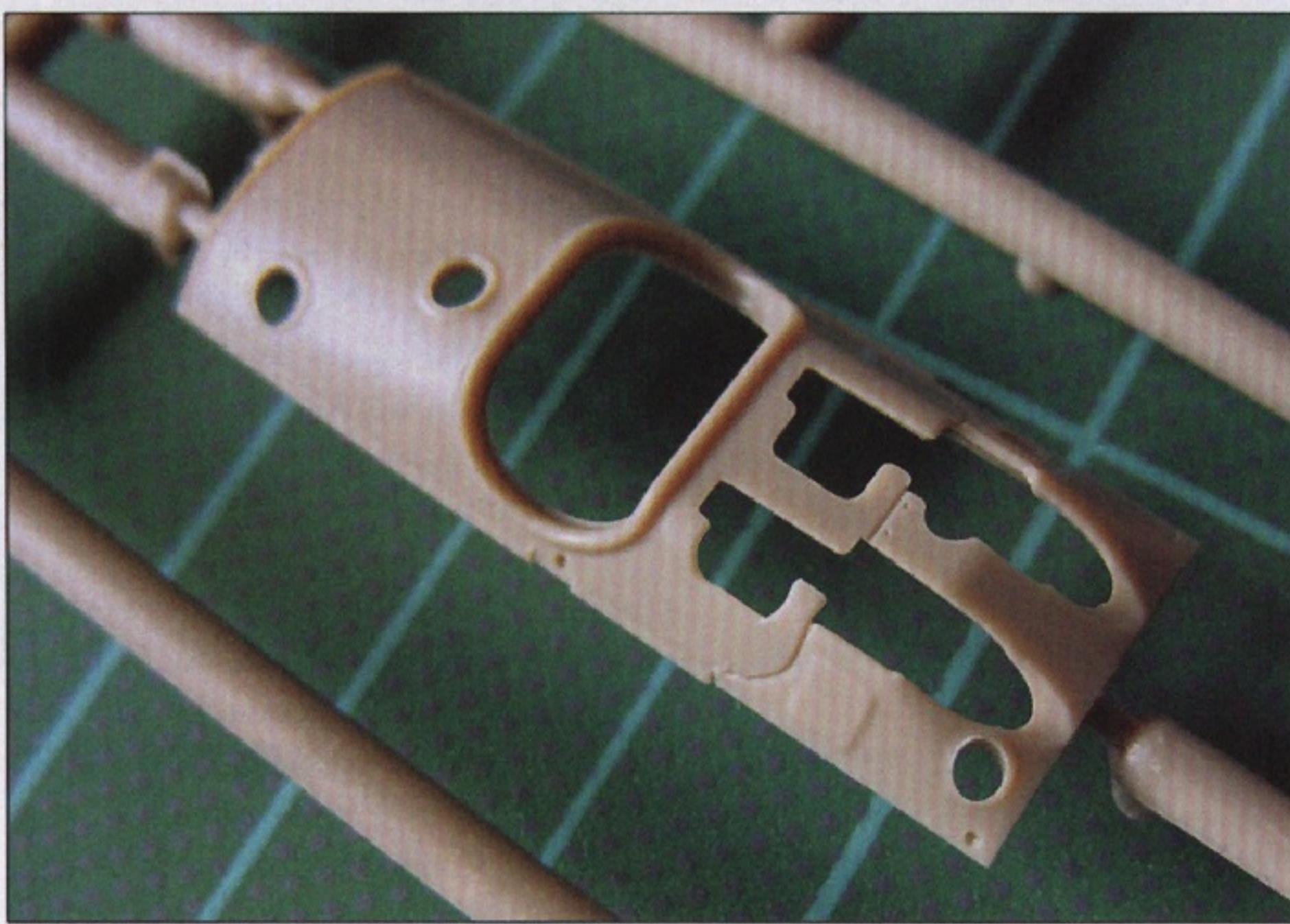
Scale: 1/48th
Kit No: 8055
Price: £16.40
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic & Etched Nickel-plated Brass
Also Includes: Die-cut, Self-adhesive Paint Masks
Decal Options: 3 (Nos 3, 9 & 10 Squadrons, RNAs)
Manufacturer: Eduard M.A.
Available in UK from: Hannants & LSA Models



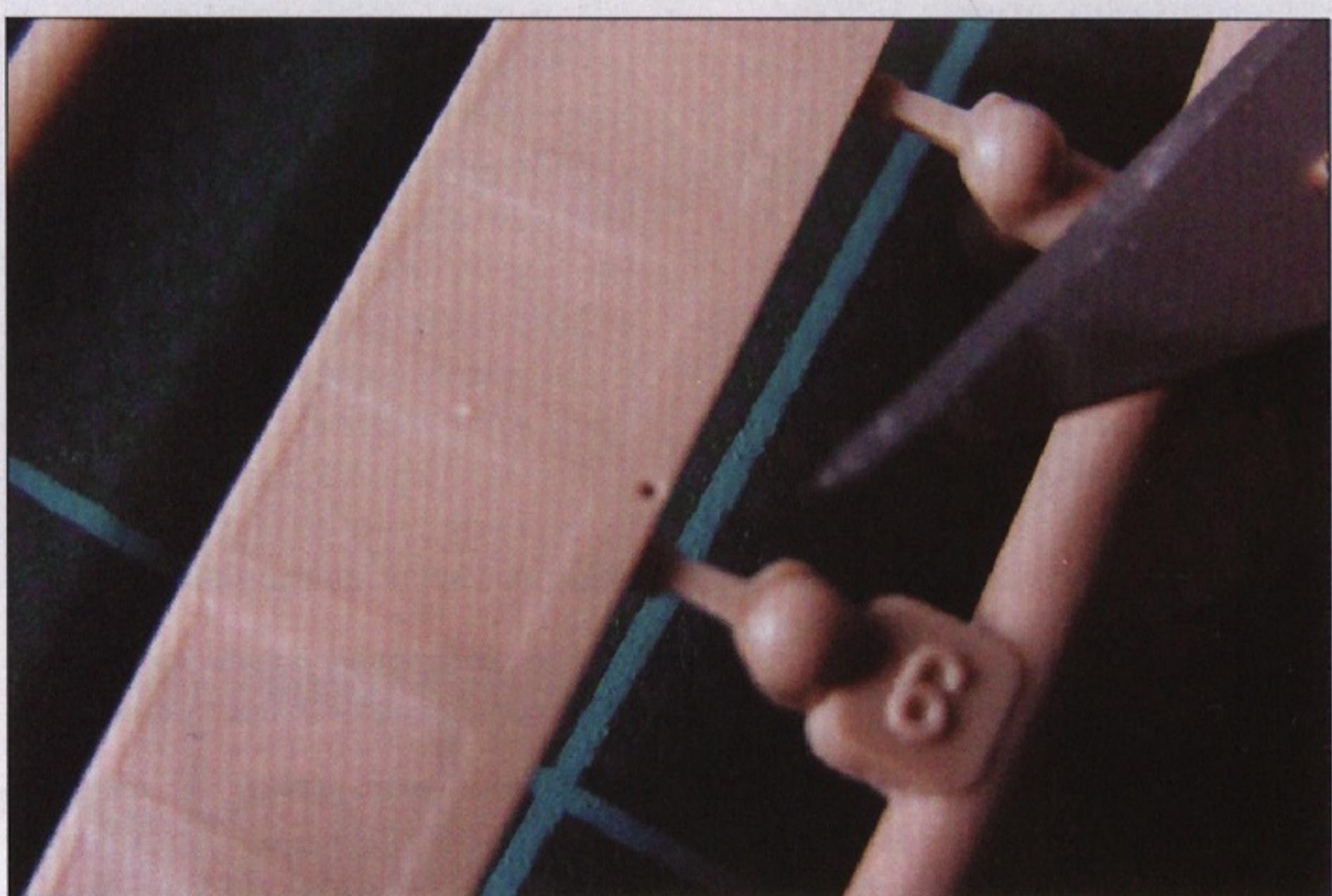
The detail on the plastic parts is very crisp - as shown in this photo of the instrument panel



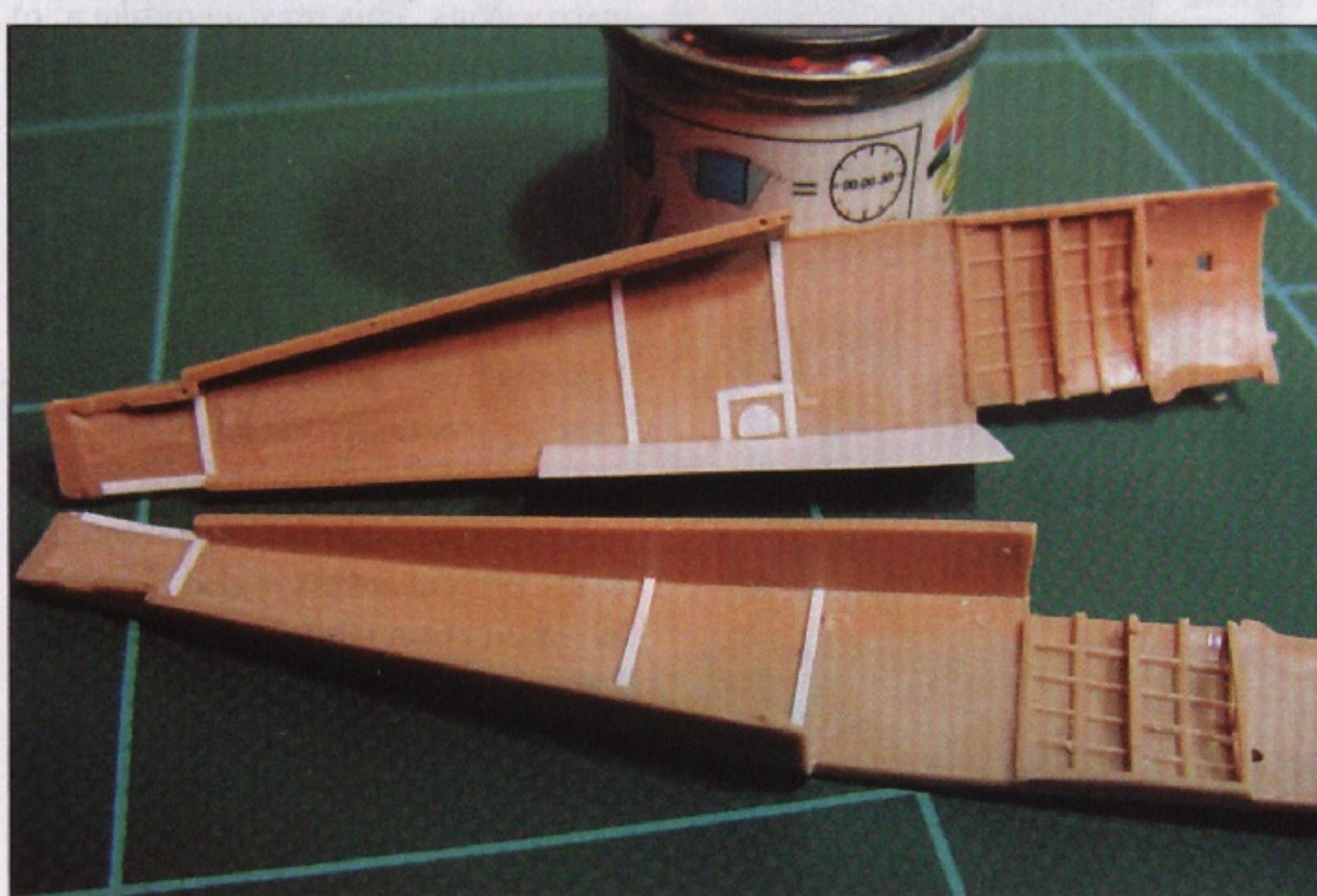
One of the control cable pulley inspection panels



There are two styles of cockpit, both complex mouldings, which are very well done



The control surfaces are moulded separately from the fixed flying surfaces. Note the excellent representation of rib tapes



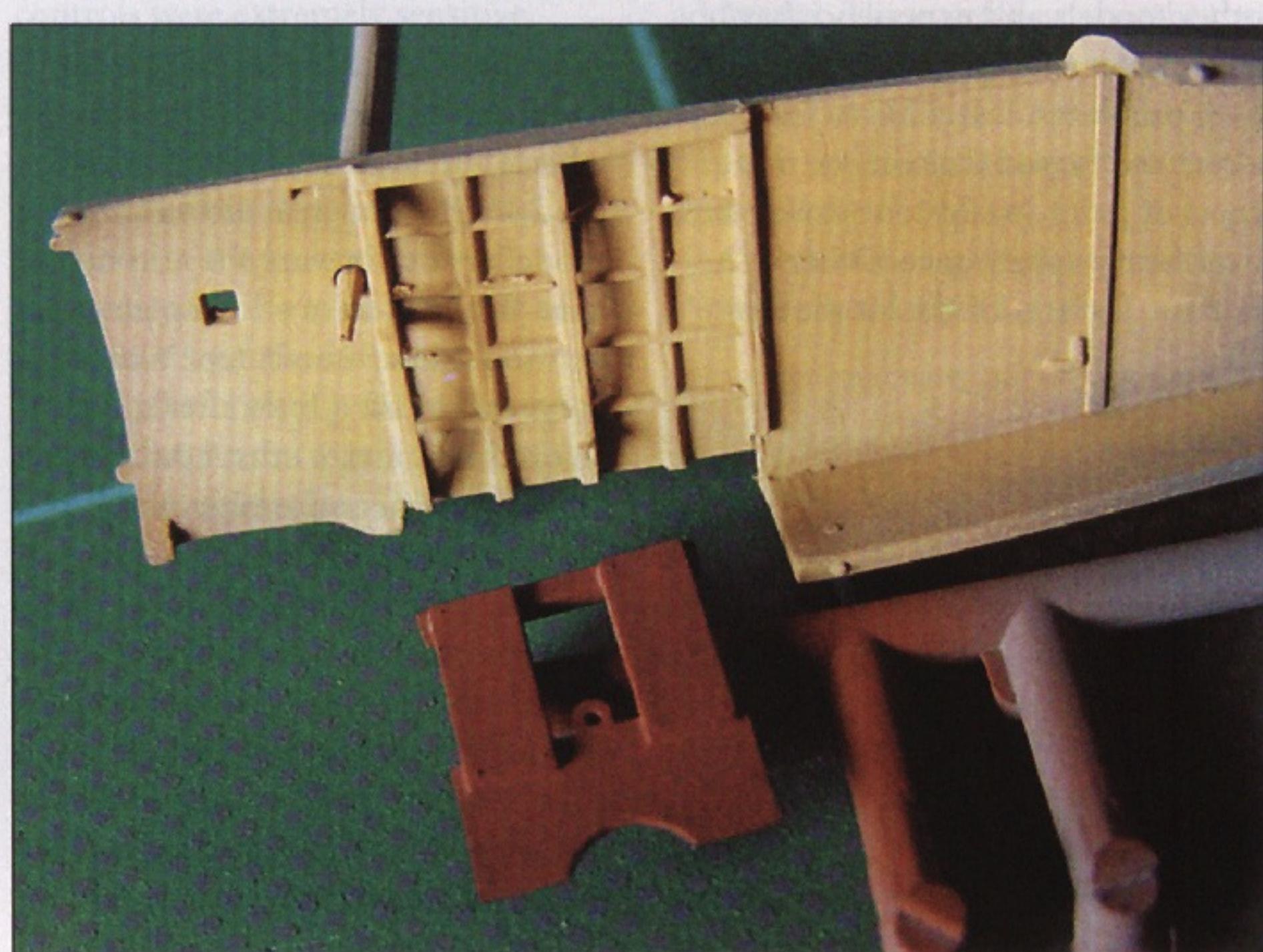
Some extra structural detail has been added. Note the false 'floor' to hide the join between the fuselage halves and the rear of the step



One of the two cowlings - if the assembly with the pre-formed hole is chosen some filler will need to be used



The main fuel tank - the seat belt attachment bar has been made from brass rod - much stronger than the etched items supplied



The internal parts undercoated with acrylic - several different shades being used

construction stage when one of the two types of top wing needs to be selected.

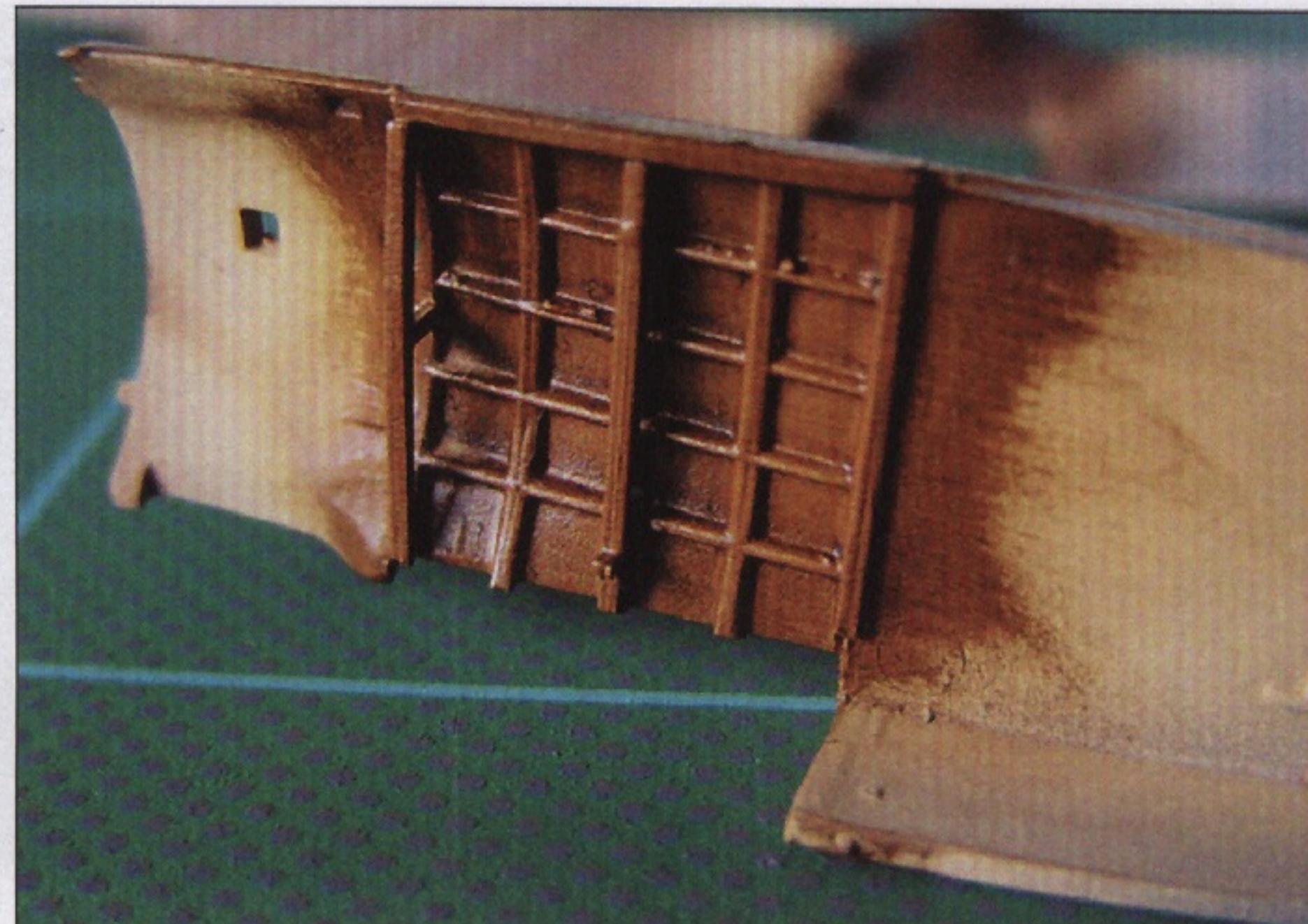
Construction is pretty straightforward and does not need a blow by blow account. However I will describe some areas where there are potential difficulties and where I think that simple improvements can be made.

I experienced some difficulty in removing the engine pushrod assemblies from their circular sprues. Perhaps due to my ineptitude I managed to break several of the pushrods on part B15 (or C15 depending on whether you refer to the parts layout or the sprue). I replaced all of these with 20thou plastic rod. Though only a few were damaged, I felt it necessary to replace all of them for a consistent appearance.

The fuel tank needed some attention. There is a noticeable join line when the two halves were fixed together. This was filled and rubbed down. This removed the some of the strap detail which was cleaned off completely and replaced with Evergreen plastic strip of suitable thickness. The pilot's shoulder straps are attached to a bar mounted on the fuel tank. This assembly is provided on the etched fret as a rather flimsy looking sliver of metal. I therefore drilled some holes into the tank and replaced the strap support with a piece of brass rod fixed in place with superglue.

The interior of the fuselage received a little extra detail. I added some fuselage structural members from strip. I also added a false 'floor' to the rear fuselage in the form of a piece of 20 thou card. There was no floor as such but this covered the joint between the two halves on the inside of the fuselage. Note that little of this is visible in the finished interior. However due to the complexity of this area I found it rather difficult to carry out the usual test fitting here so it was not particularly obvious what would be visible and what would not. I think that all the modeller really needs to do is sort out the fuel tank joint and the seat belt support.

The painting of the interior of the Camel is quite complex with metal, plywood and fabric areas needing to be represented as well as the wooden fuselage formers. I represented the wooden areas by first applying a base coat of Tamiya acrylic and then scrubbing various shades of oil paint over this with a broad, stiff oil painting brush. This technique works best on large flat areas where it is necessary to represent wood grain but it is also reasonably successful for some of the smaller pieces such as the seat supports and the instrument panel. I used either Dark Yellow XF60 or Nato Brown XF68 to undercoat the parts - I think that any shades approximating to these will give



Oils were used to replicate wood grain. This works best on flat areas but the effect here was quite pleasing

adequate contrast. I then used a number of shades of oils to give texture to the wooden parts. I chose to use raw umber on the main plywood areas and burnt umber and a mixture of yellow ochre and red on the other wooden elements. The combination of different shades of undercoat and different combinations of oils gives a number of different shades of wood on the interior - though the actual colours may exhibit a little poetic licence on my part. This adds a lot of interest to the finished model. A disadvantage of this method of representing wood grain is that the oil paint takes about a week to dry and cure properly and little more can be done with the model during this period. Once properly dried, I sealed the paint with a light sprayed coat of Johnson's Clear before going on to paint and detail the rest of the interior. One small complaint here is that the representation of the structure inside the plywood fuselage panels looks a little heavy to me, especially when compared to the etched metal representations in other kits of Sopwith types. However this is perhaps not as bad as it seems as this prominent feature might otherwise be lost inside the busy fuselage interior.

The seat was a wicker structure rather than the more usual plywood affair found in aircraft of this era. The seat is a solid plastic item and the wickerwork is represented in the kit by transfers, and while this is an interesting idea I'm not sure it works that well. I first undercoated the seat with dark yellow acrylic and then applied some yellow ochre oil paint while doing the rest of the fuselage interior. The transfers were applied over this (forgetting the seat pan which later received a plastic card cushion) and the seat was given a light spray of Tamiya clear yellow. Regular readers of Windsock magazine may have noted a spectacular build feature of a D.H.2 in a recent issue by Dr. Tom Morgan. This feature shows the construction of a woven seat in 1/48th scale! Interestingly the Camel kit contains separate mouldings of the seat pan

and the top of the seat (presumably to receive an etched representation of the wickerwork in the forthcoming ProfiPack version of the kit) which allowed me to try the same thing. Needless to say the results of my efforts were nothing like the results of Dr. Morgan's efforts - now let us never speak of this again.

The fuselage was made of wood and was braced with wire. Mindful that these wires might have been visible through the cockpit opening, I represented these using steel wire rolled straight under a steel ruler. Also quite visible were the control wires running from the control column and the rudder bar. I used rolled steel wire for these as well. If you choose to add these features bear in mind that the fuselage interior is now a rather fragile assembly and you will need to be careful with the masking of the cockpit opening before painting. You can't just fill the area with damp tissue and expect to keep all the parts in place when you try and get it back out. I got around the problem by attaching as many of these parts as I could through the cockpit opening after painting was completed.

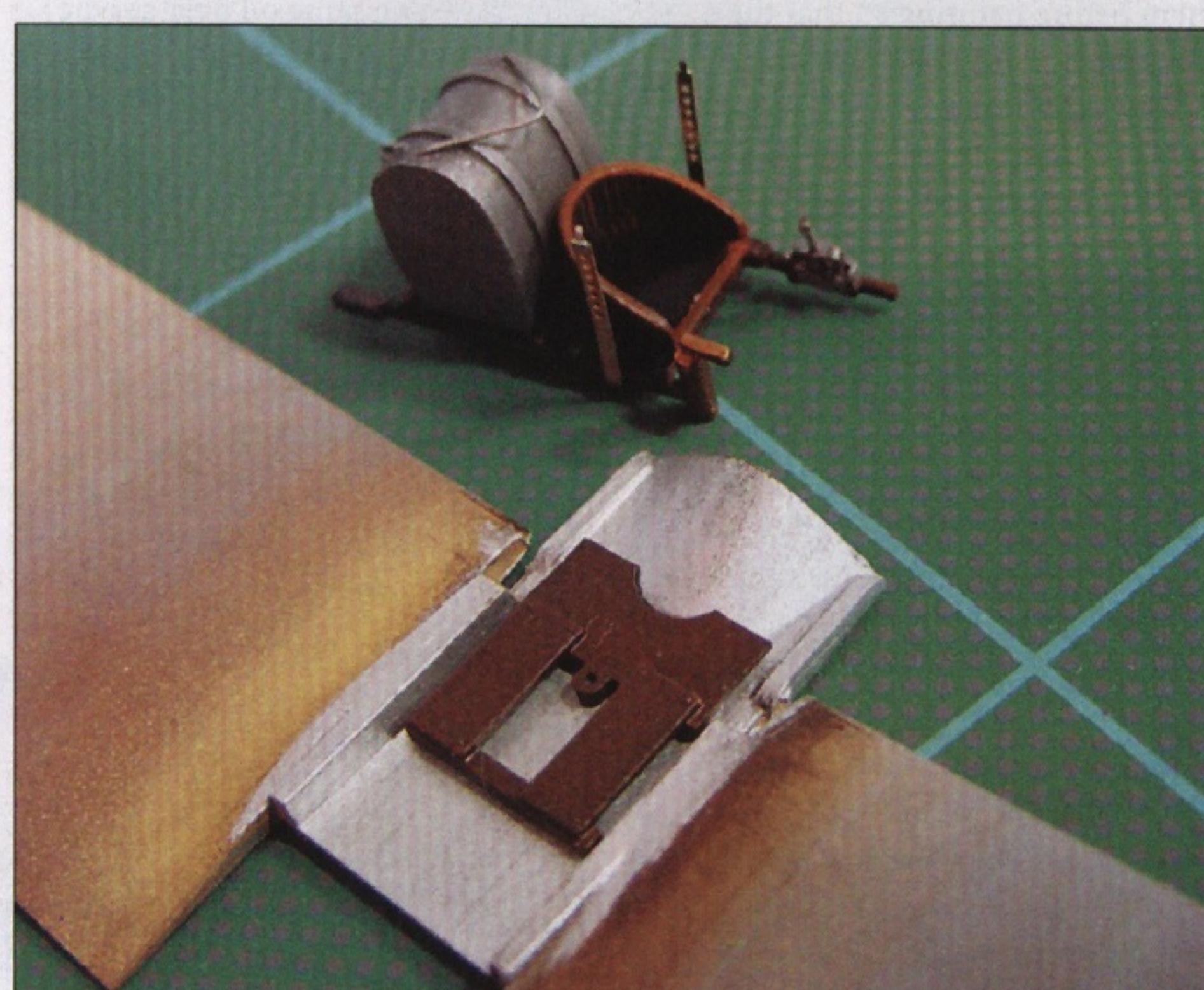
The instrument faces are represented by transfers and while

quite good, I had a little difficulty in getting them to fit into the instrument recesses. A little Micro Sol seemed to help here and when set a touch of Johnsons Klear represented the instrument glass. One feature missing from the instrument panel is the glass pulseometer on the lower left hand side. This was easily represented by a small piece of plastic rod painted silver (my attempts at using clear stretched sprue for this item just came up with something that looked grey and rather silly).

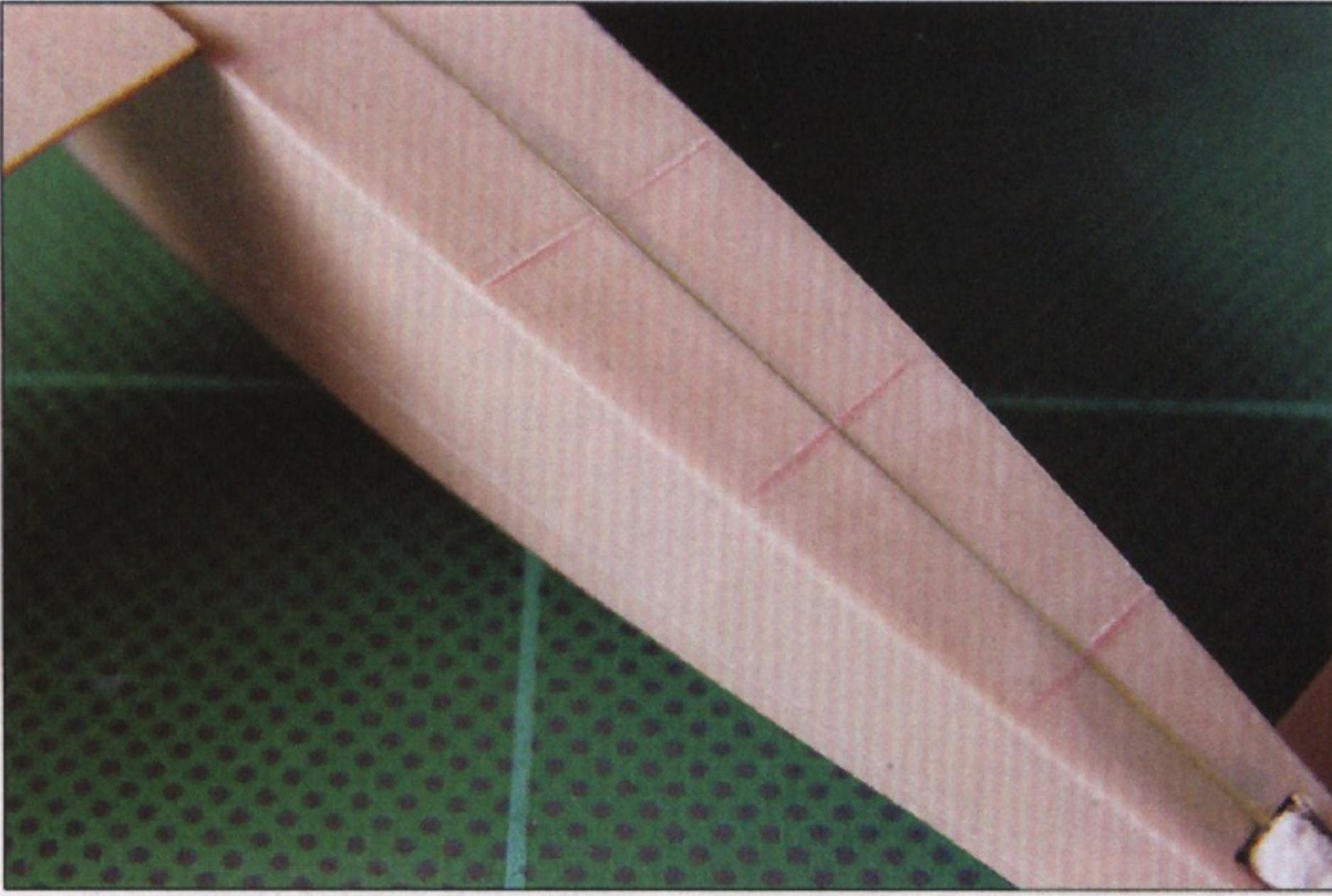
The assembly of the interior components and the cockpit coaming went ahead without major problems. However care needs to be taken here and there are a lot of pieces that need to be sandwiched between the fuselage halves. They do all fit (eventually) but I found this part of the project fiddly and would recommend that you have a pair of fine tweezers on hand to ease some of them into position.

The depiction of fabric stretched over an internal framework on the fuselage sides and top does not extend to the underside of the fuselage. I represented this by attaching some thin rod and blending it into the kit parts with copious amounts of Liquid Poly and then lightly sanding the resulting area when this had dried for a few days.

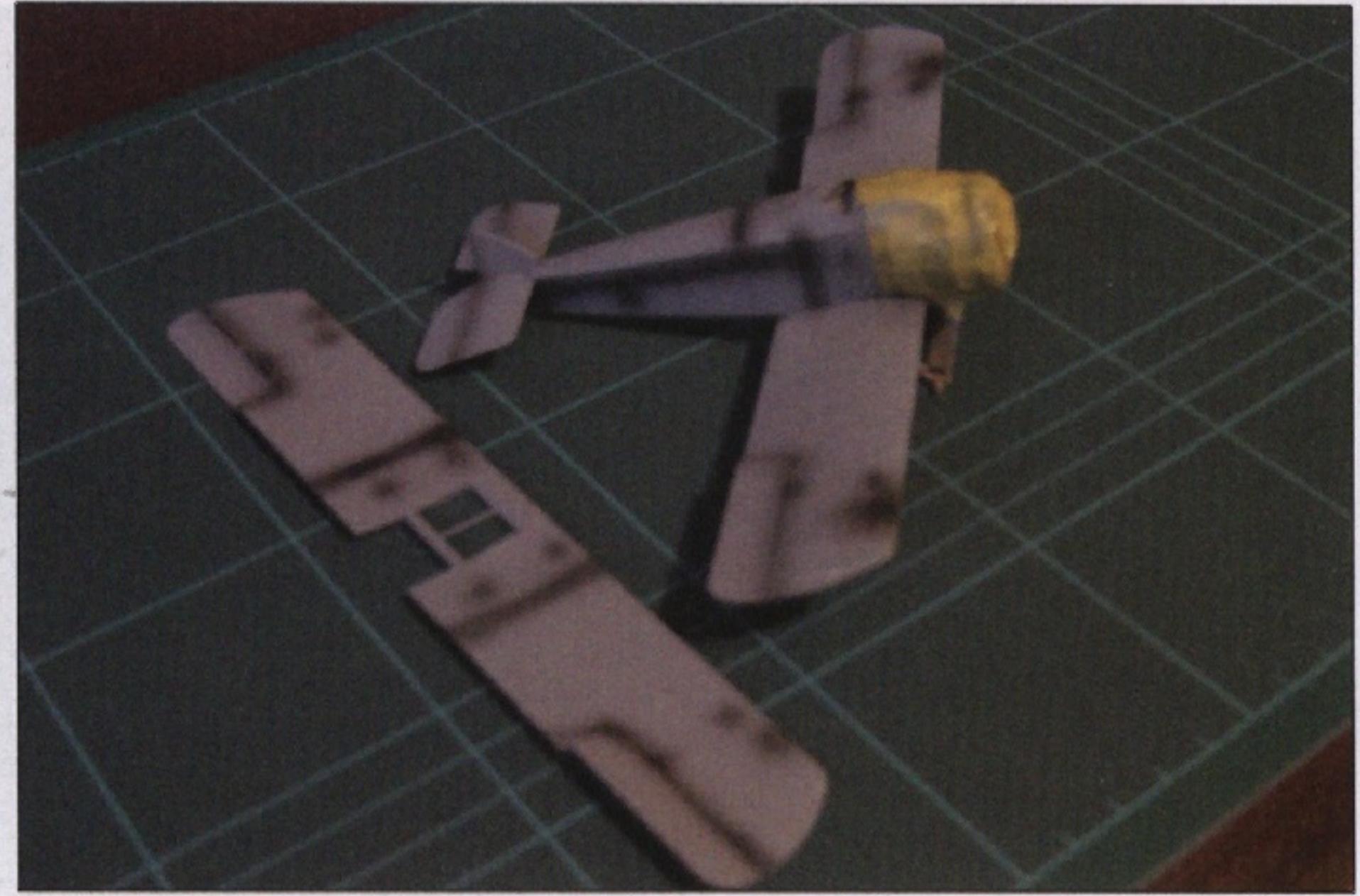
The transparent inspection panels in the wings fit well. But note that they are shaped like wedges with the tapered portion needing to go to the front of the wing. Treat these as you would separately moulded wingtip landing lights. I fixed them in place with thin superglue and sanded them to the contours of the wings then polished them with a felt polishing disk in a motor tool. As supplied in the kit, the inspection panels are visible on the undersides of the wings. I am not sure that this is correct. Having looked at wartime photos of crashed Camel's where the undersides can be seen, the panels



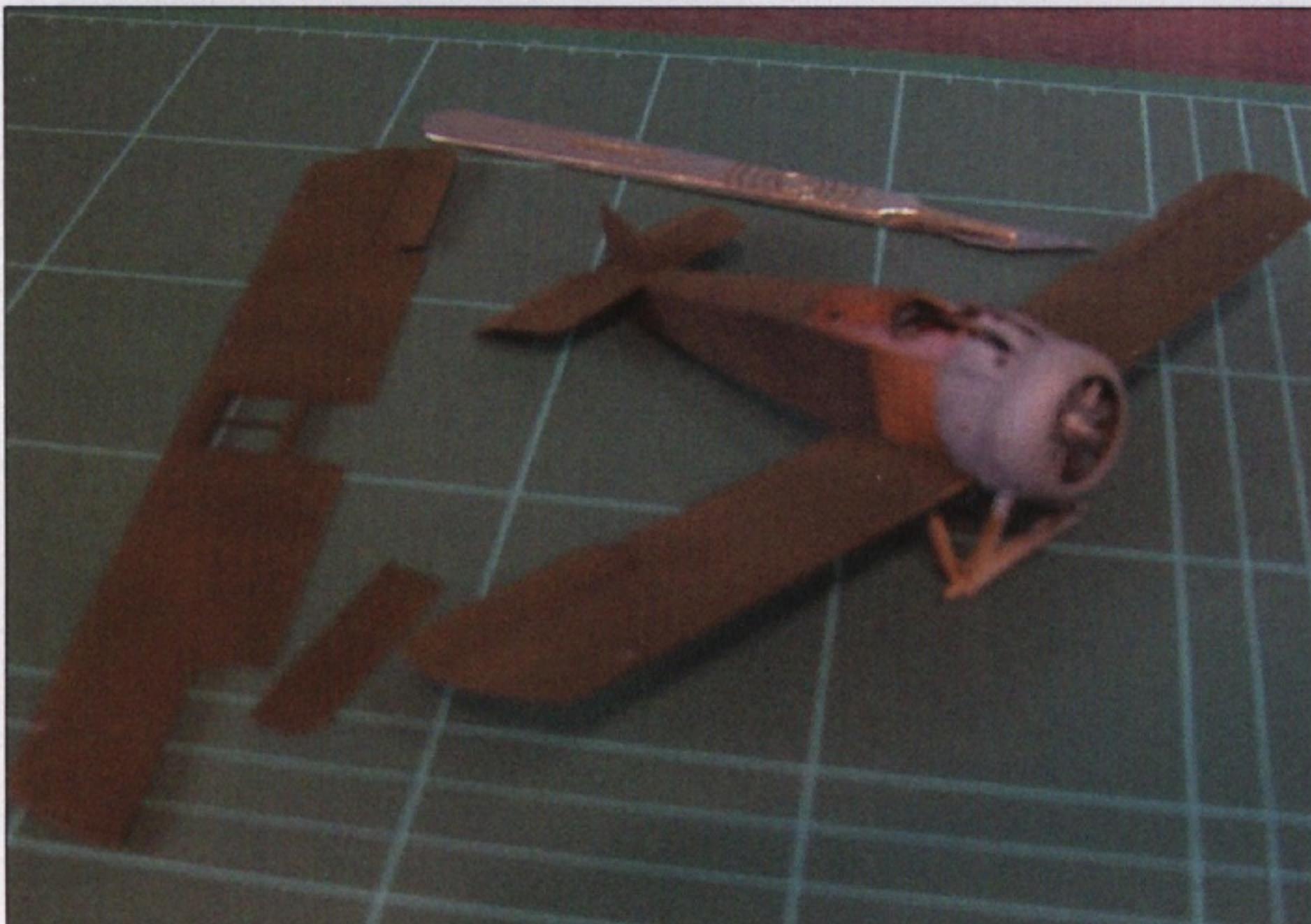
The floor pan is metal - though I'm not sure if the rear portion behind the footboards should be in fabric. The pilot's seat with the belts being attached can also be seen



Just visible in this shot are the thin pieces of rod - now sanded down - that represent the interior structure through the doped fabric



The model has been undercoated, polished and then pre-shaded



The main paint coats have been applied, and final detailing can now begin



The underside of the completed model

are not obvious (though this may be due to the quality of the photos and the distressed condition of the aircraft). I left mine as they were but check your references here. Perhaps there were differences between specific aircraft.

Care needs to be taken with the control surfaces on both the wings and the elevators. They are attached to the main flying surfaces by tiny stubs representing the hinges and the assemblies are very fragile. I attached them before painting so that the hinge areas could be pre-shaded along with the rest of the airframe. Some of them broke away when the masks were removed after painting, no matter how carefully I tried to do this. You may wish to leave them separate until after painting is complete.

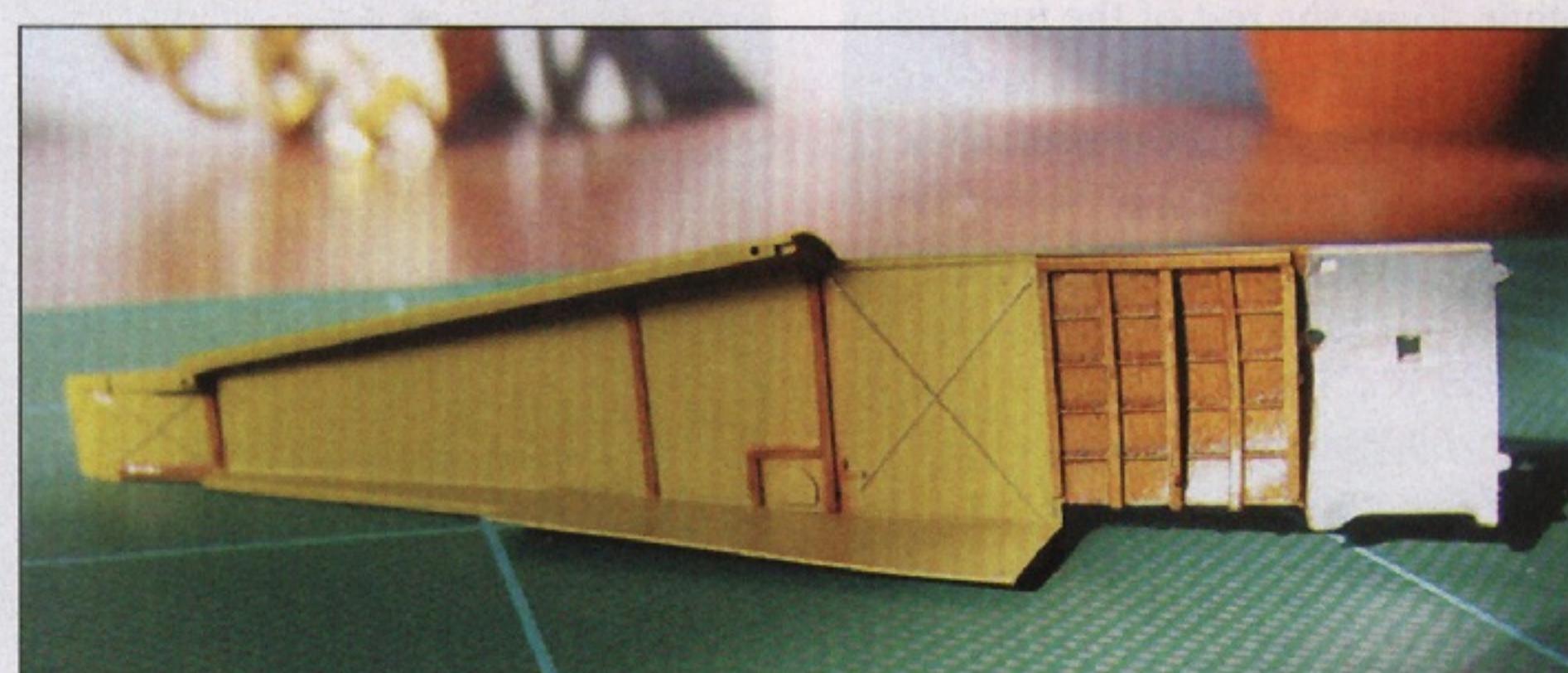
With the main elements of the kit together I undercoated the assembly with Halfords Grey Plastic Primer and after cleaning up some of my more suspect joints, the model was polished with very fine wet and dry paper to provide as smooth a surface as possible for transfer application. I pre-shaded the model with Tamiya matt black. This was done quite sparingly, an attempt to pre-shade all the rib locations, for example, would have ended up with a solid area of black, which is not what you need.

Having looked at photos of

Camels from No.46 squadron (though I must admit to failing to find one of the actual aircraft modelled) I was a little unsure of Eduard's depiction of the whole of the front fuselage in grey. The area around and directly behind the pilot was made of plywood and it seems to have been a common practice for this area to be left clear varnished rather than painted. This was the case for aircraft C1659 of No.46 Squadron so I decided to represent F2137 in the same way. The same oil over acrylic method of representing plywood was used as was used for the fuselage interior. This added another rather frustrating week to the construction time while the paint dried!

The rest of the model was painted using Tamiya and AeroMaster acrylics. The cowling was treated with AeroMaster Slate Grey, the

underside was Tamiya Dark Yellow lightened with white and the upper surfaces were done in Tamiya Olive Drab. I found that the pre-shading effect was lost on the dark upper surface colour so re-applied the black over a solid coat of Olive Drab and lightly oversprayed this with more olive drab to produce the desired effect. The model was then sealed with a coat of Johnsons Klear which darkened the Olive Drab to produce what I thought was a pleasing representation of the PC10 topcoat. Purists may argue with these colours used but the shades seemed about right to me. This sealing process is important as there needs to be a lot of handling during the rest of the construction and you risk marking the paint, especially along the sharp edges of the fuselage and the leading and trailing edges of the wing.



Some bracing wires have been attached inside the fuselage in areas which might be visible in the completed model

Final Assembly And Detailing

I applied the transfers to the wings before final assembly. This allows enough pressure to be applied with a hot flannel to press the images down firmly so that they conform to the rib detail. The tiny control horns were then applied with some difficulty as the locating holes are minute and were lost under the transfers. The fuselage images were left until later on to avoid marking them when handling the fuselage during the final assembly. The rudder stripes were painted rather than using the transfers provided (application of transfers that fully cover rudders has always confounded me for some reason) and as frequently happens I found it difficult to match up the primary colours (red and blue) with those on the transfer sheet. The painted blue areas were eventually covered over with strips of blue cut from the kit's rudder stripes as I could not live with the obvious colour differences. The transfers are very good, being extremely thin with good colour density.

The joystick and the mounting bar for the gun breeches were added through the cockpit opening to be followed by the guns themselves. A little trimming of the right hand ammunition feed was necessary to get the starboard gun to sit properly. I had fitted the pilot's waist straps



before the fuselage halves were joined intending to insert the shoulder straps through the cockpit opening to avoid damaging them during masking. I had a little difficulty getting the shoulder straps fitted and would advise that these are fitted as and when suggested in the kit instructions - just take extra care when you remove any masking from inside the cockpit. Before using them, I usually anneal brass seat belts, by heating them and then immersing into cold water, as this process softens them, making it easier to get them to conform to the rest of the model. Being pre-painted this was not possible and in future I will use unpainted belts as it is easier to get them to sit as desired.

The struts and top wing were assembled without problems. On reflection it may have been more advisable to fit the struts to the lower wing and fuselage before painting with the top wing just dry fitted. With a simple colour scheme like this it should have been easy to mask around these. Fitting them to a spray painted fuselage poses the risk of damaging the paint finish and touch ups with a brush are always noticeable. If they had been fitted before painting the only area that could have been damaged would have been under the top wing.

There is a cross member present

between the lower ends of the fuselage legs which is represented in the kit, but photos of a preserved (replica?) example of a Camel in the Windsock Datafile shows a small piece running from this cross member to the axle bar which is not represented. I added these from thin strip and wound some lycra thread around the assembly to represent bungee suspension chord before adding the wheels (where I was frankly glad of the pre-cut painting masks!).

Rigging was done using my preferred medium of steel wire rolled straight under a steel ruler and applied with white glue. This wire looks fine on the model but does tend to reflect the lights used when a model is photographed making the rigging wires look a lot more prominent than they actually are. There are no gunsights supplied in the kit so I added a couple of etched items from a Reheat set.

As late as possible in the construction sequence, the fuselage transfers were applied. The images are fragile and thin and I would recommend that those for the fuselage sides are cut into two or three sections before they are used. The red markings for the fuselage top did not have the colour density of the other images and appeared a different colour to the rest of the

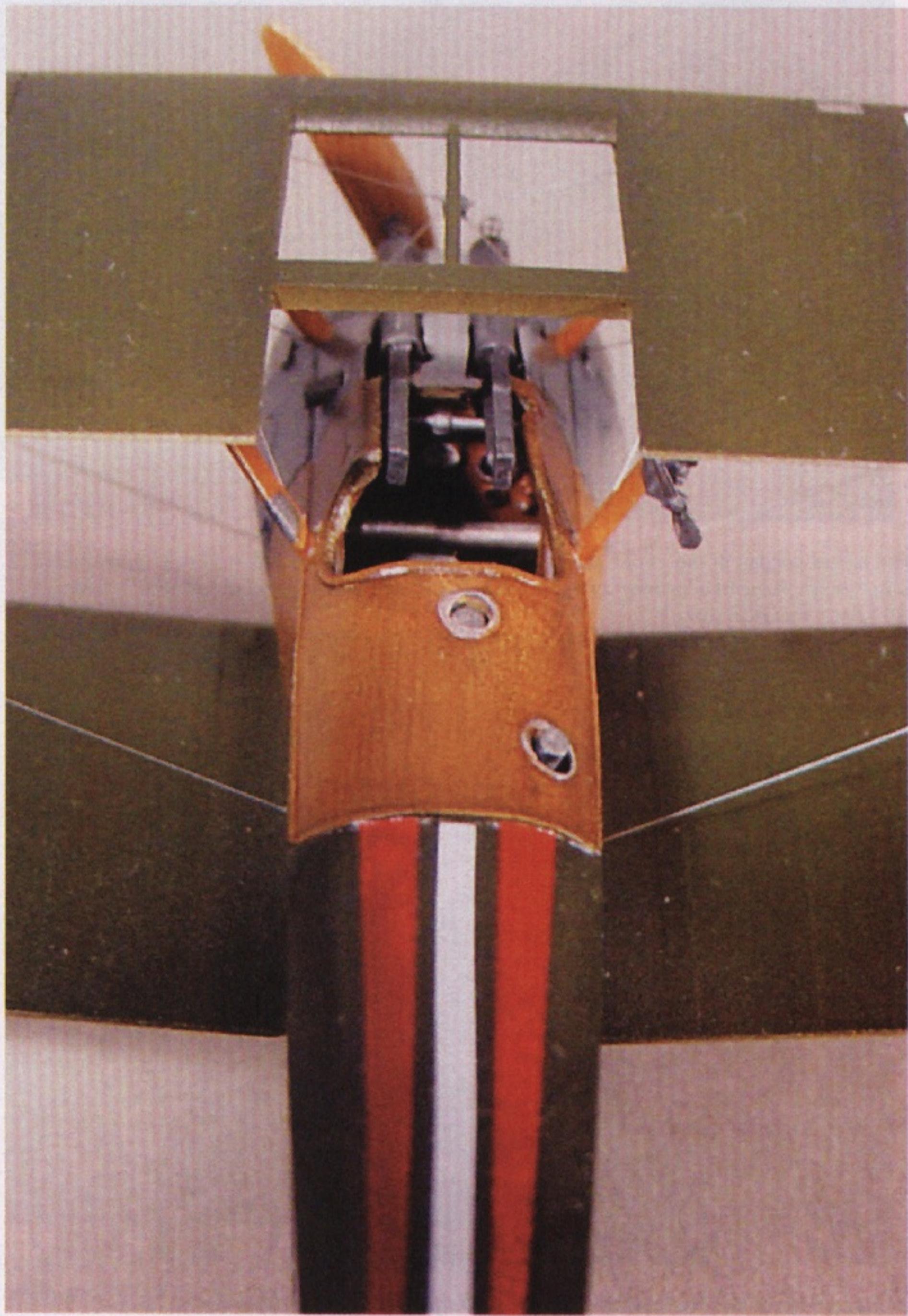


photo album

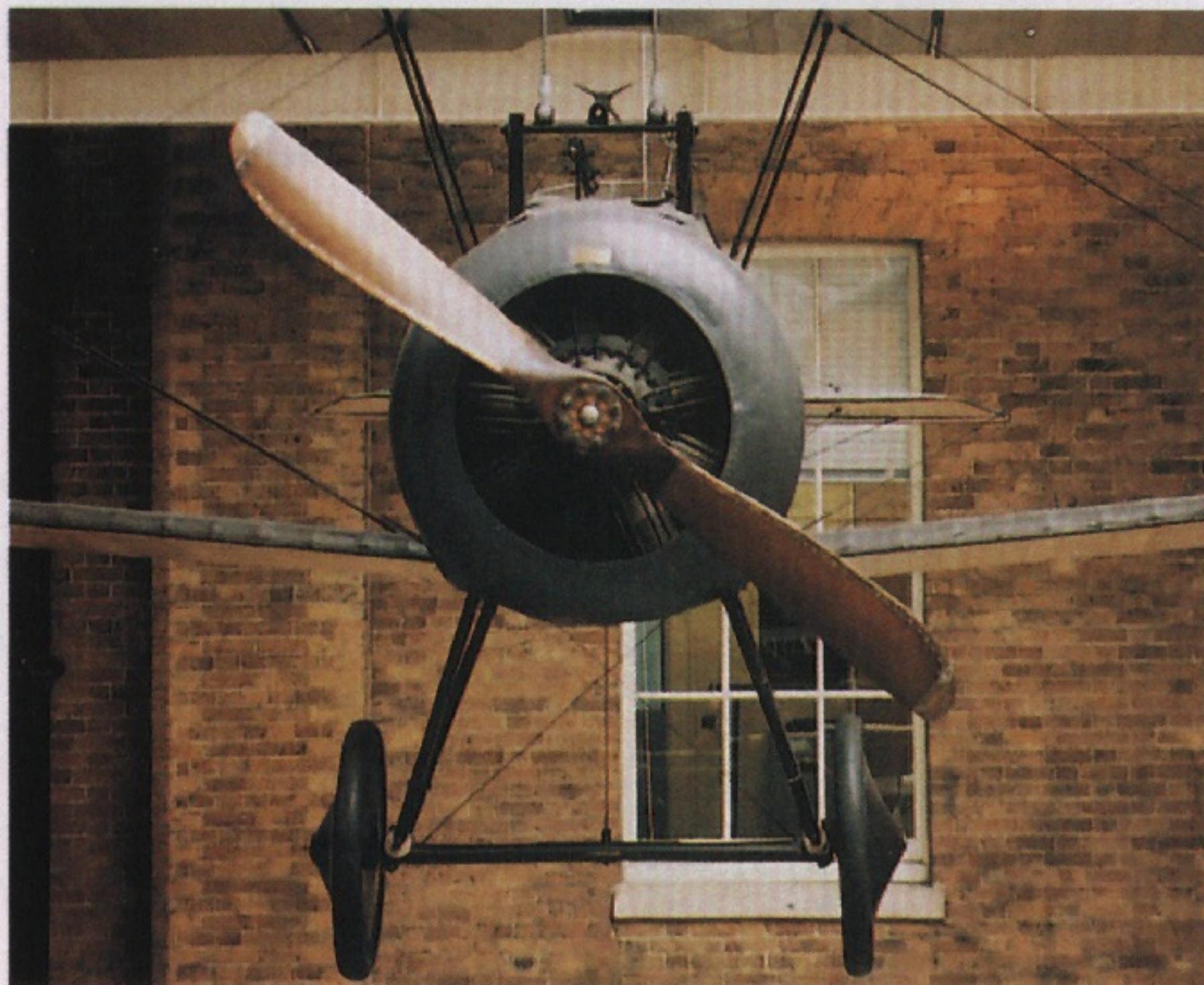
by Neil Pinchbeck

Sea-Going Camel – The Sopwith Camel 2F.1 at the Imperial War Museum, London



The Sopwith Camel 2F.1 was the 'navalised version' of the more numerous F.1 and was designed to be operated at sea by the Royal Naval Air Service. A major design feature was the break seen behind the cockpit, allowing the fuselage to be dismantled into two sections for storage at sea. In 1917, operations at sea did not just mean from the new aircraft carriers. Requirements included launching from makeshift catapults and ramps attached to the gun turrets of capital ships and from lighter barges towed behind fast destroyers.

On 31st of July 1918, Flight Sub-Lieutenant S.D. Cully RNAS became the first pilot to successfully take off from a towed lighter. On the 11th August 1918, the same pilot took off in the Camel N. 6812 from a lighter towed by the destroyer HMS Redoubt and shot down the Zeppelin L53, the last airship of the war to be destroyed in aerial combat. Cully landed in the sea alongside the lighter and N 6812 was recovered undamaged.



The centre section of the upper wing of the 2F.1 was narrower than that of the F.1, with the lower wings reduced in proportion, giving the 2F.1 an overall wingspan of just over 1 foot (30.5cms.) less than the F.1.



Undercarriage detail. Notice also the brass binding to the wooden propeller



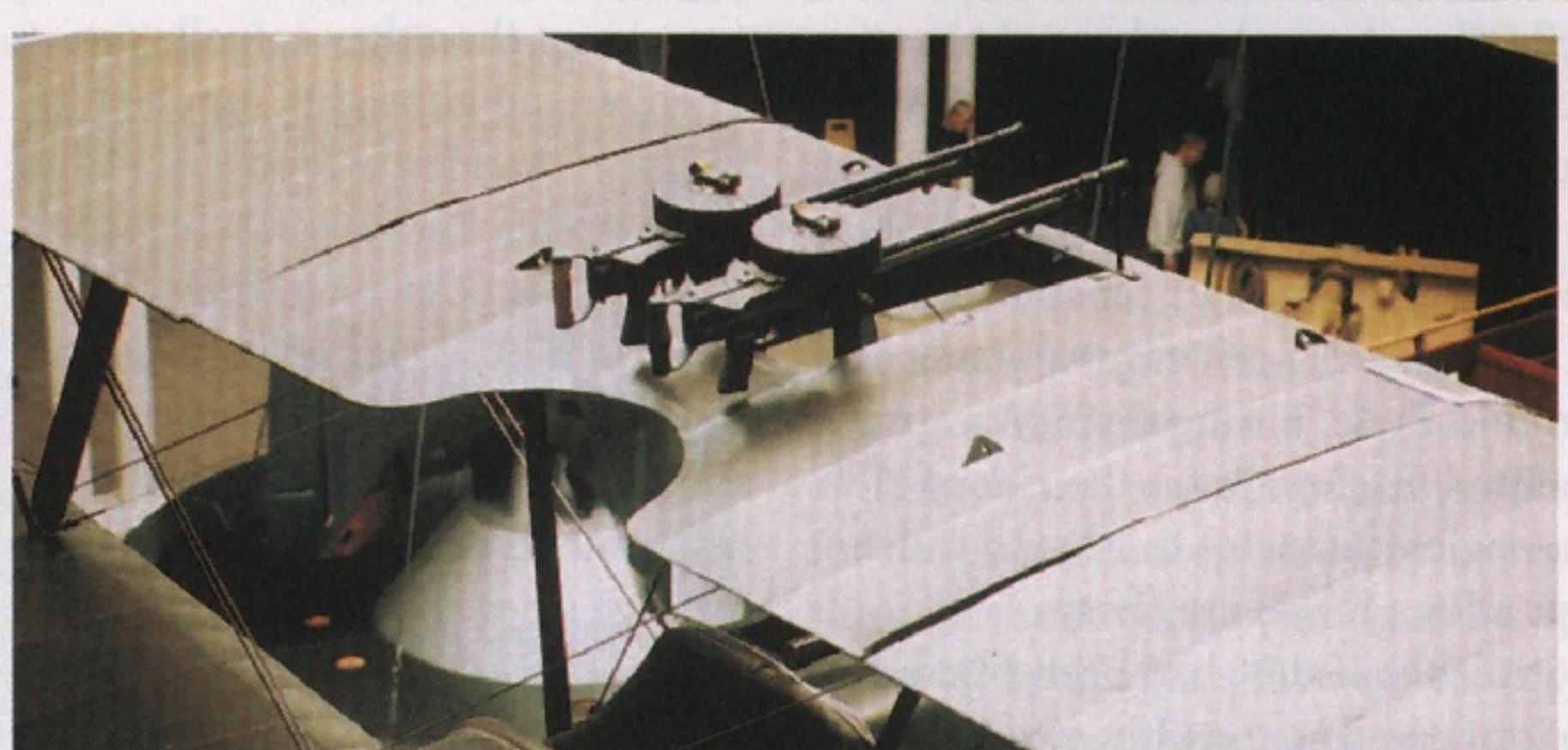
For ease of manufacture both F.1 and 2F.1 Camels had straight top wings, dihedral being limited to the lower wings



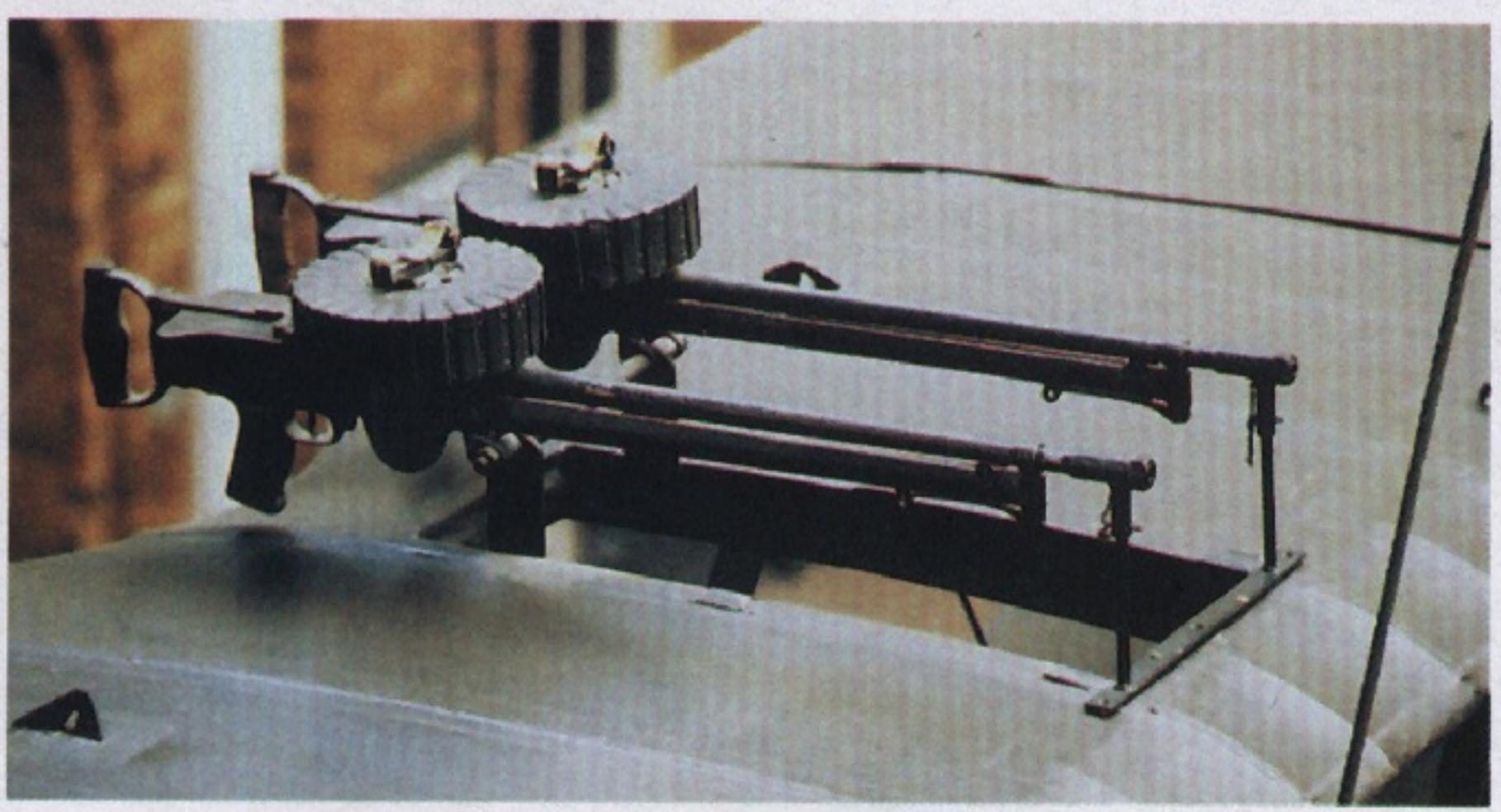
The standard armament of the 2F.1 was one fixed synchronised Vickers gun on top of the fuselage, offset to port in front of the cockpit, and one Lewis gun above the wing centre section. In the case of N6812, the Vickers gun has been removed. An Aldiss type sight is fitted, offset to starboard, to align with the pilot's right eye.



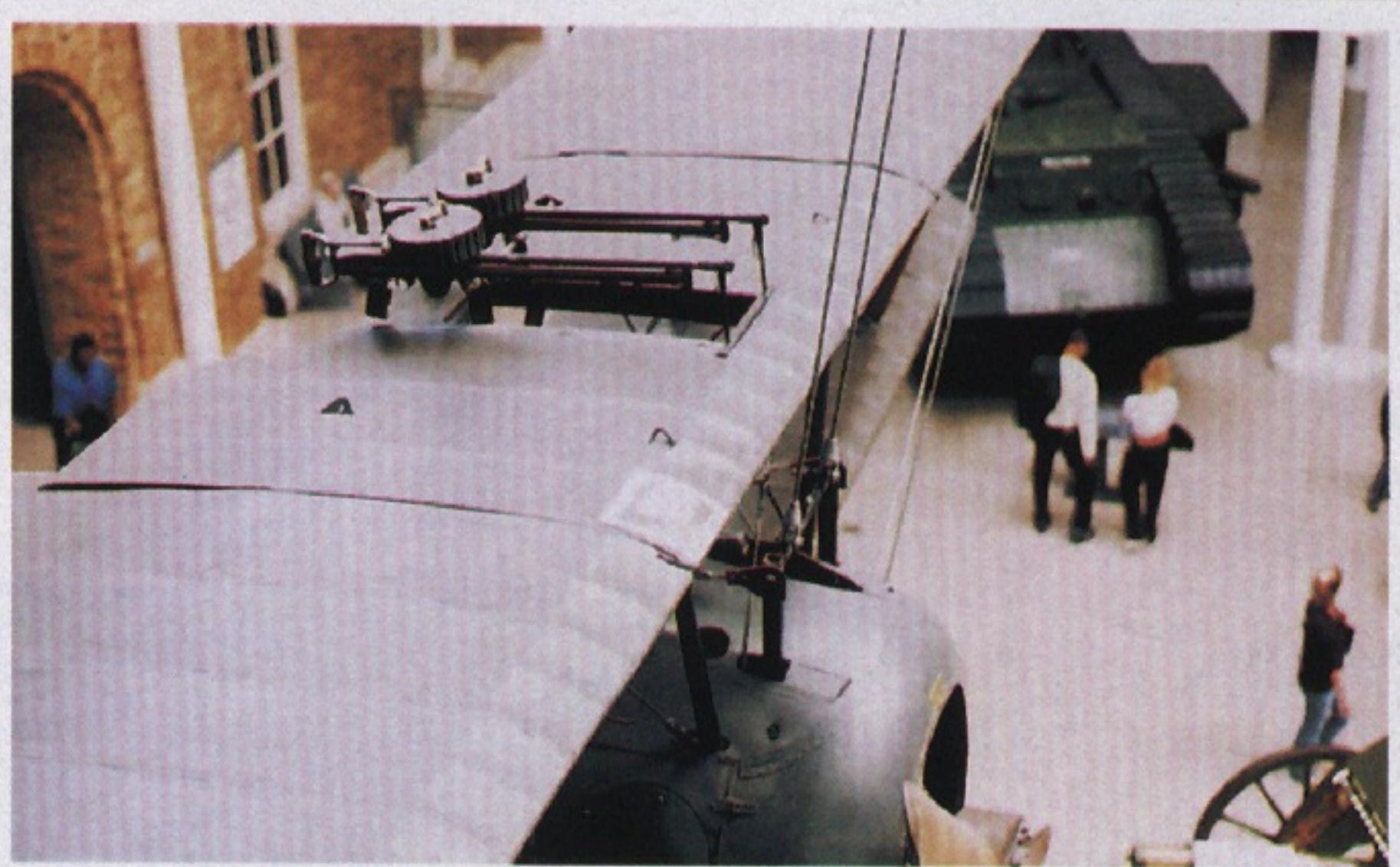
The Camel 2F.1 was powered either by the 130hp Clerget or 150hp Bentley BR 1 engine. The gyroscopic effect of both these rotary engines gave the Camel some of its most deadly handling characteristics, to both friend and foe alike!



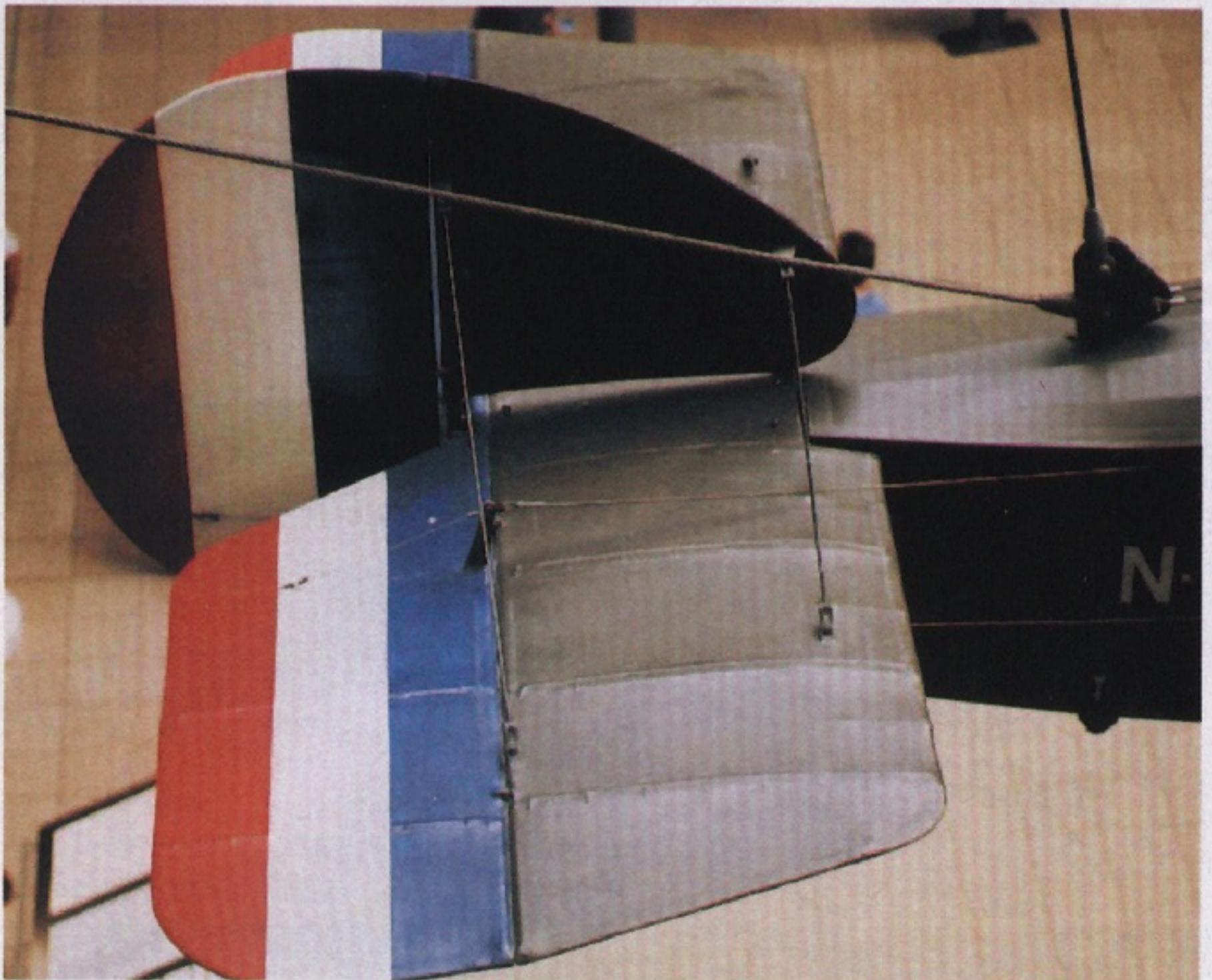
In N6812, the standard armament is replaced by a pair of Lewis guns mounted above the upper wing centre section



A closer look at the Lewis gun installation



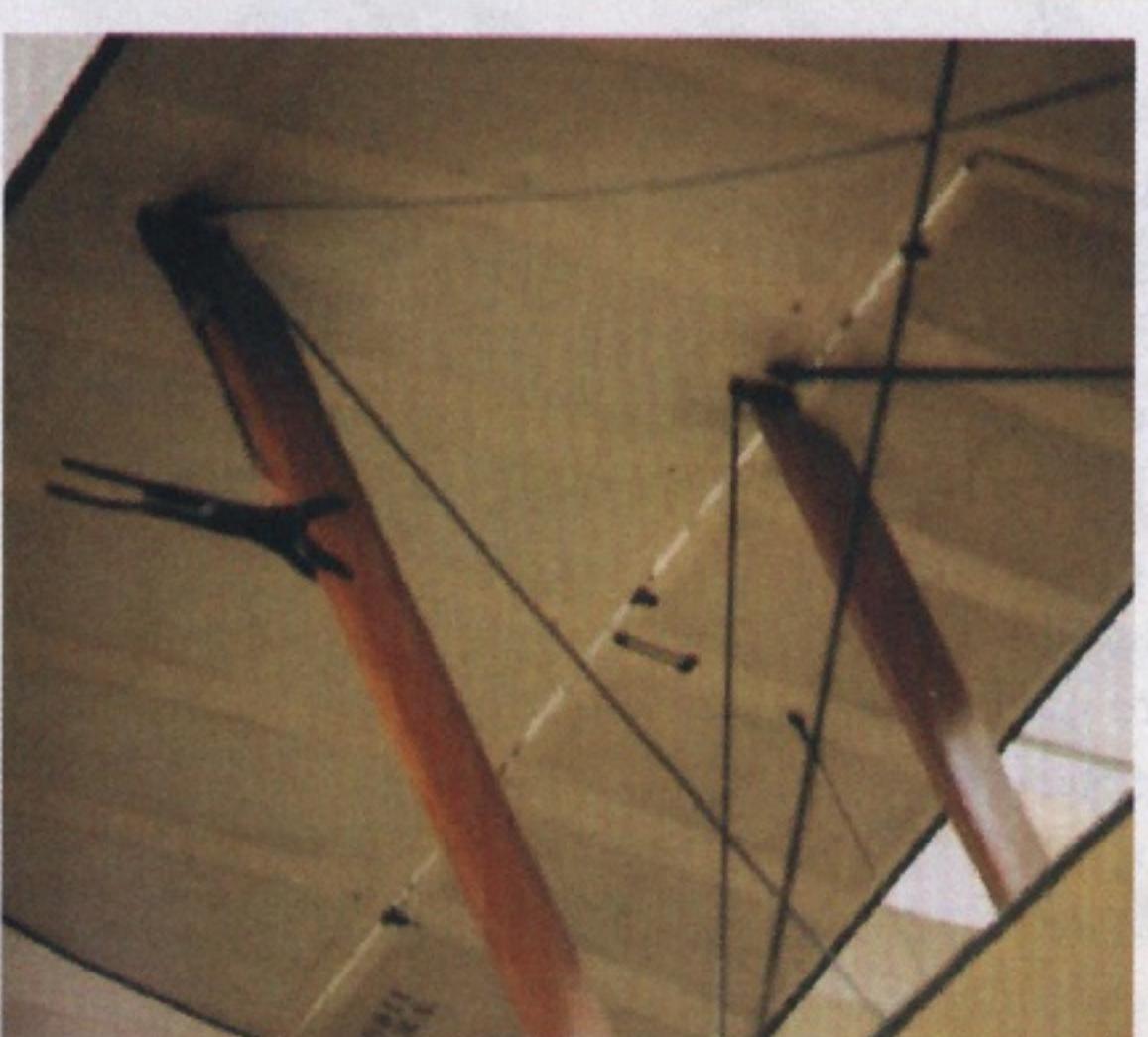
The upper wing centre section incorporates four cable attachment lugs, to facilitate recovery of the aircraft from the sea



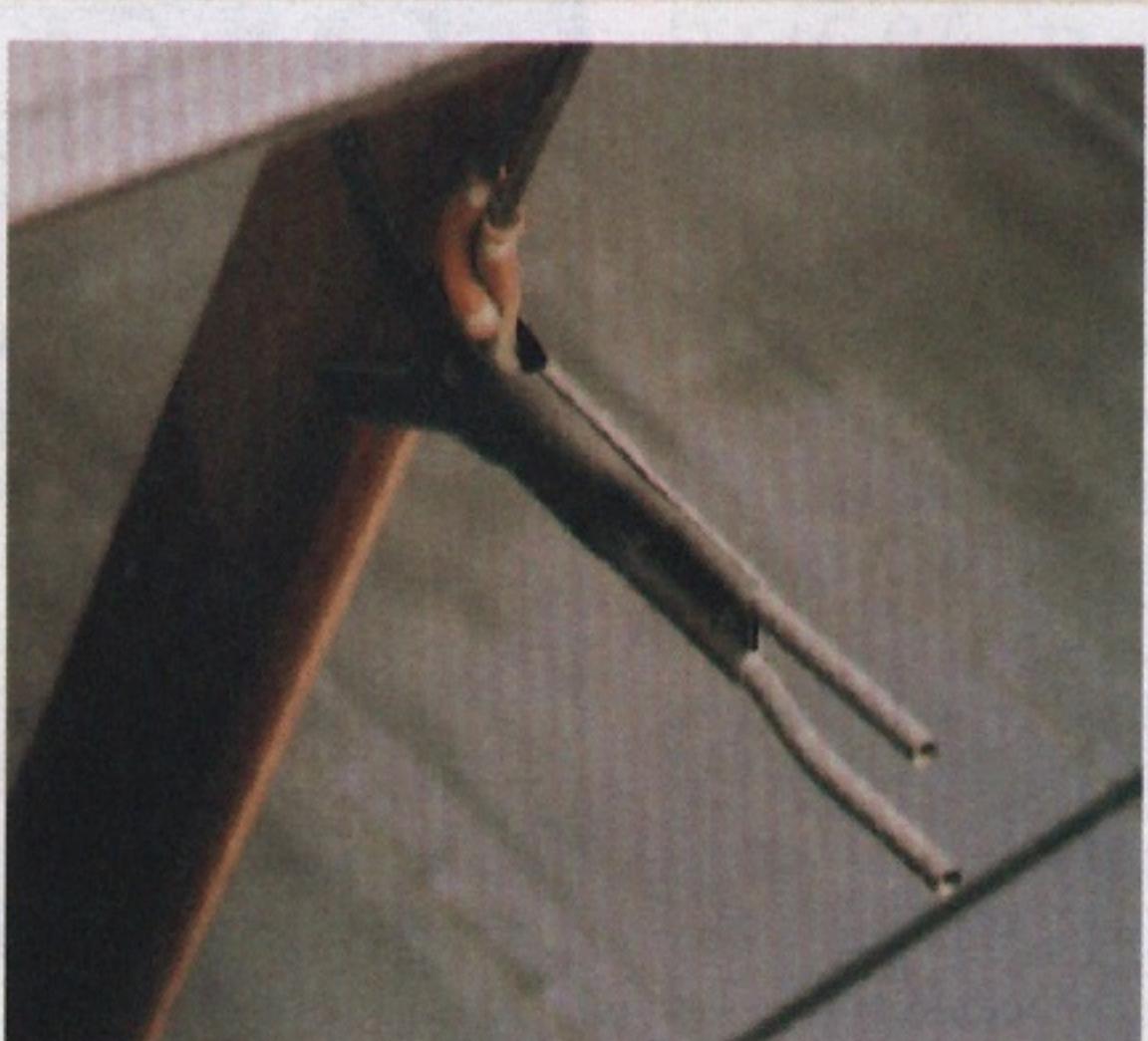
Upper surfaces of the tailplane. Notice the painting of the elevators. The large bracket and wires belong to the museum's suspension system and are not part of the aircraft!



Another distinguishing feature of the 2F.1 was that the wooden cabane struts were replaced by tubular steel



The wooden interplane struts and bracing wires of the F.1 were retained in the 2F.1



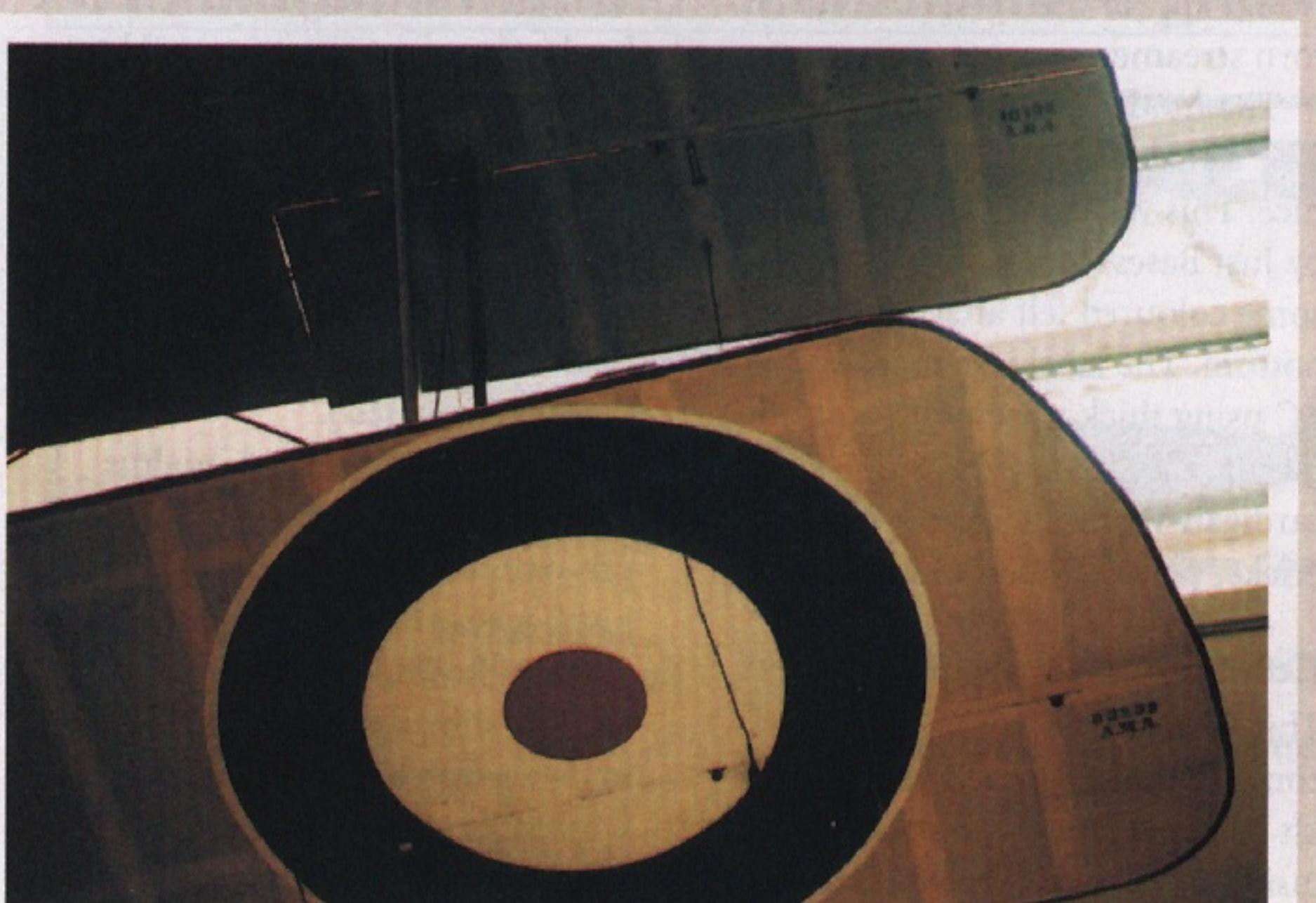
Detail of the pitot head carried on the leading interplane strut, starboard side



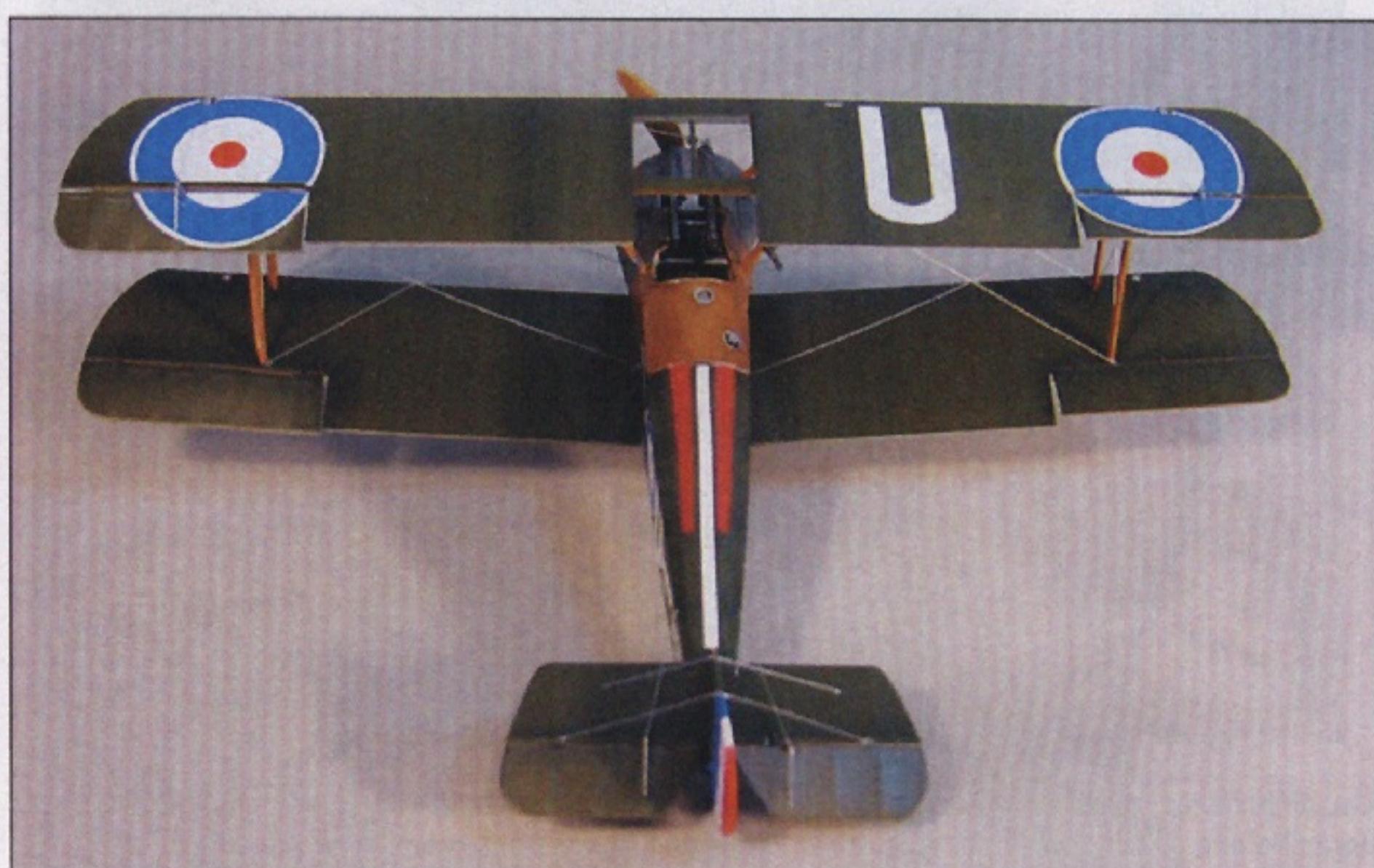
This late 2F.1 has what appears to be a searchlight incorporated into the leading edge of the upper wing centre section



Underside of the tailplane and skid detail. The elevator cables of the 2F.1 were completely exposed, as distinct from only partially so on the F.1



Underside of both wings, port side. The ailerons placed at extreme wingtips added considerably to the Camel's manoeuvrability



transfers. It may be better to paint and mask these areas before the main top colour is applied.

The last things to be added were the streamers from transfers supplied in the kit. They did not look very convincing and seemed to want to stream out behind the model, which looked a little odd. You may have better luck than me but I eventually removed these as experience has shown that when dry, transfers can become brittle and I did not think that these would be permanent fixtures on the model after a few weeks! Having nothing there at all would appear better than a broken, torn streamer.

The model was placed on a plain base as I think that this just looks nice. This was an MDF base provided by Just Bases, sprayed black, with some coloured felt attached to the bottom. The label was made on my PC using thick paper with a dashing, daring, thoroughly dependable, cardigan-wearing, tea drinking, cricket playing, good old British font.

Conclusion

This kit has been a long time in coming. Eduard attach some of the kit components to a cardboard insert inside the box and this insert sports photos of other releases. These inserts have shown pictures of the Camel for some years now and every

time I have been to a model show over this period I have looked forward to seeing these on the shelves and have gone home disappointed. Well it's finally here and was it worth the wait? In my view the answer is an unreserved 'yes'. It's a thoroughly well produced kit and while kits of WWI biplanes are never going to be as easy to throw together as WWII single seat monoplane fighters, this has to be about as close as you can get to Japanese mass produced quality with this type of model. You have a very complete package here. The kit is accurate, well thought out and there has been a great attention paid to detail. Some may be unhappy about the appearance of the rib tapes but beneath an undercoat and a couple of coats of paint, they do not look bad at all (and Eduard have saved you the rather difficult job of doing them for yourself).

I may have had some qualms about the use of pre-cut masks and pre-painted seat belts. Perhaps this is just because of my preconceived views of how to build a plastic kit and the things that I ought to be able to do for myself. In providing these Eduard have done nothing more than make things easy for people and what is wrong with that? This goes further to opening up WWI modelling to more people, which can

be nothing but a good move. I would recommend this kit to just about anyone. Eduard are in my view the best manufacturer of WWI kits around today. They have covered a lot of the better known WWI aircraft types with up to date, good quality kits and as shown by the appearance of their Albatros W.4, they are not averse to tackling the more esoteric subjects either. They are even prepared to retool and update kits that they have already produced such as their excellent Albatros D.V which shows quite a commitment to producing high quality products. I look forward to all their forthcoming releases with great interest. An advert

in a recent issue of this magazine indicates the forthcoming release of a series of Spad 13s, which I'm sure will be very welcome indeed.

My thanks go to Eduard M.A. for the opportunity to build this kit.

Dai Williams

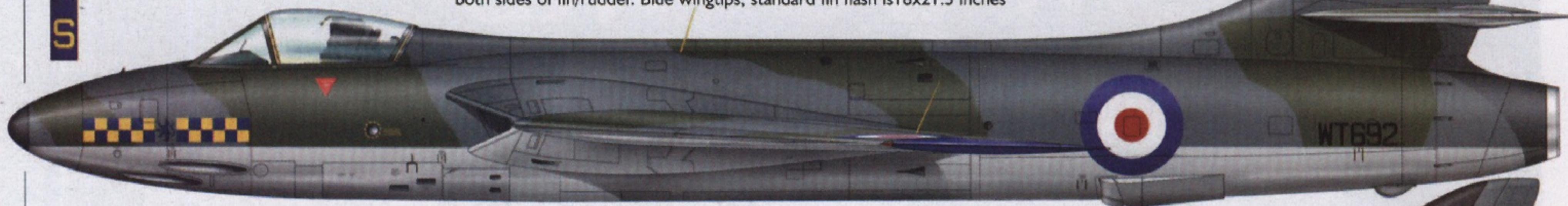
References

- Windsock Datafile No 26 - Sopwith Camel by J.M. Bruce, Albatros Productions © 1991 [ISBN 0-948414-30-8]
- Vintage Warbirds No 5 - The Sopwith Fighters by J.M. Bruce [ISBN 0-85368-790-0]
- Sopwith Fighters In Action No. 110, Squadron/Signal Publications
- Sopwith Camel King of Combat by C. Bowyer, Aston Publishing
- Aeroplanes of the RFC, Putnam



Sopwith F.1 Camel

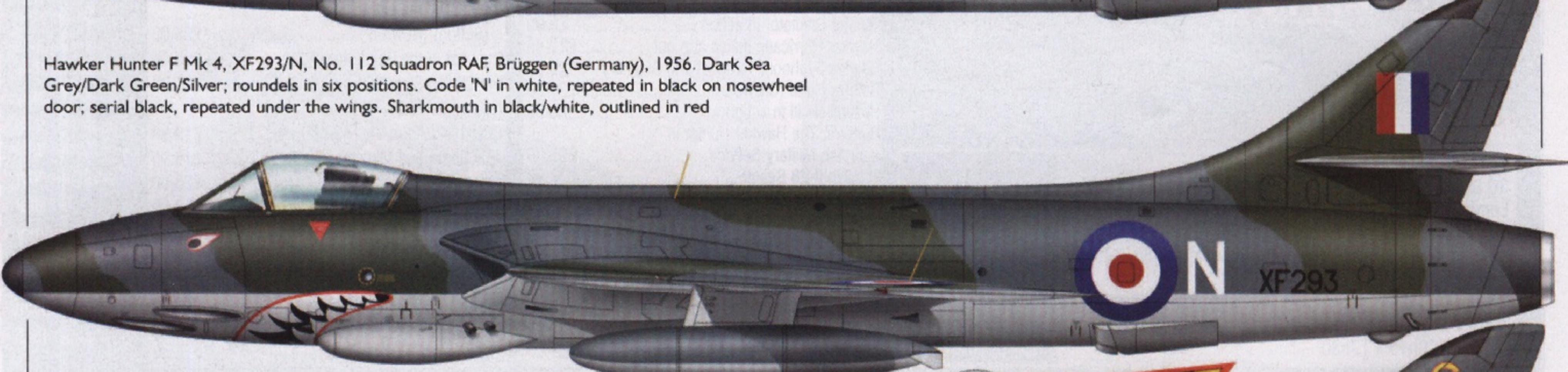
Hawker Hunter F Mk 1, WT682/S, No. 54 Squadron RAF, 1955. Dark Sea Grey/Dark Green uppersurfaces, Silver (Aluminium Paint) undersides; roundels in six positions (those on fuselage and under wings being 36in diameter, 48" diameter above wings). Yellow code letter 'S' on fin, repeated on blue nosewheel door; blue flash on both sides of fin/rudder. Blue wingtips; standard fin flash is 18x21.5 inches



Hawker Hunter F Mk 4, XF976, No. 3 Squadron RAF, during a visit to RCAF Base at Melville. Dark Sea Grey/Dark Green/Silver; roundels in six positions. Red bars on either side of fuselage roundel, thinly edged in white; black/white checks on fin/rudder and rear section of squadron marking. Fuselage roundels 'zapped' with RCAF Maple Leaf



Hawker Hunter F Mk 4, XF293/N, No. 112 Squadron RAF, Brüggen (Germany), 1956. Dark Sea Grey/Dark Green/Silver; roundels in six positions. Code 'N' in white, repeated in black on nosewheel door; serial black, repeated under the wings. Sharkmouth in black/white, outlined in red



Hawker Hunter F Mk 5, WP130/S, No. 34 Squadron RAF, Akrotiri (Cyprus), Suez Crisis, October 1956. Dark Sea Grey/Dark Green/Silver. Yellow/black bands around rear fuselage and around wings (note those above and under the wing are not aligned). Roundels in six positions. Code 'S' in yellow, outlined in red, repeated in yellow only on black nosewheel door

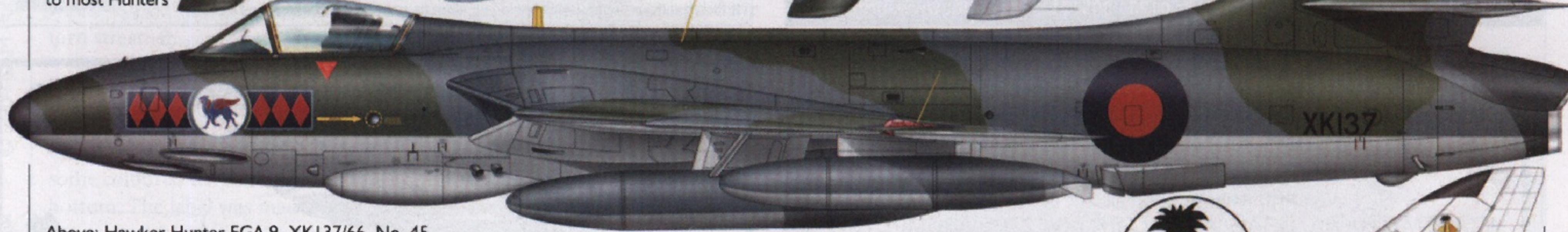


Typical upper surface camouflage pattern, applicable to most Hunters

Left: Style of underwing serial representation



Above: Hawker Hunter FGA.9, XK137/66, No. 45 Squadron RAF, Wittering, 1974. Dark Sea Grey/Dark Green/Light Aircraft Grey; 'B' type roundels on fuselage sides and above wings only. Code '66' repeated in black on nosewheel door



Below: Hawker Hunter F Mk 6, XF509/73, No. 4 Flying Training School, RAF Valley. Gloss White, Light Grey and Red finish (see front cover for details). Black serial/code and anti-dazzle panel. '73' repeated in black on Light Aircraft Grey nosewheel door





Hawker F Mk 58 Hunters of the Patrouille Suisse in 1985, one of the numerous aerobatic teams to use the type for their displays (Militärflugdienst Dübendorf)

The Hawker Hunter Single-Seaters

by Richard J. Caruana

Call it elegance, call it grace, or even beauty; Hawker's Hunter was the last of a breed of aircraft where one of the rules of thumb in design philosophy was 'if it looks right, it will fly right'. No computer gurus were around at that time, able to run simulated test runs on the desktop. It all had to be done by pencil and slide-rule. Richard J. Caruana describes and illustrates this Hawker thoroughbred, with a completely new set of quarter-scale scale plans and a selection of some of the most colourful schemes sported by the Hunter.

The aerodynamic development scene of the immediate post-war era was characterised by sharp contrasts on either side of the Atlantic. Whereas the tempo of wartime research was to continue unabated in America, the British industry was led by Government into an austerity programme, convinced that the Gloster Meteor would serve well into the early 'fifties. In the United States, a very innovative aircraft was taking shape, one that would leave an indelible mark on fighter development, the North American F-86 Sabre.

At that time, Hawker Aircraft Ltd were absorbed by development work on the P.1040, which stemmed from the company's first jet design, the P.1035. Later to be called the Sea Hawk, it flew for the first time on 2 September 1947 and was eventually to enter service in March 1953. Intrigued by the possibility of designing a Sabre competitor, Hawker handed over the Sea Hawk production programme to Armstrong Whitworth in order to concentrate on responding to Air Ministry Specification F.43/46. This called for a

single-seat fighter powered by an axial-flow jet engine as opposed to the centrifugal power-plants, then already reaching their development limitations.

Hawker's Chief Designer, Sir Sydney Camm found little inspiration in the official specifications as outlined in F.43/46 and gave birth to a completely different design concept under the designation of P.1067. The design was flexible enough to accept different power plants, initial considerations being given to the Rolls Royce AJ.65 (later the Avon) or the Metrovick F.9 (taken over later on by Armstrong Whitworth and named Sapphire).

Specification F.3/48 was written around Hawker's proposal, superseding F.43/46. According to standard practice of the time, the specification was also presented to Vickers-Supermarine. This led to the birth of the Swift, a difficult machine that enjoyed a very short service life. By that time it was clear that duplication of such projects was wasteful in resources and enormously expensive; competitive fly-offs became a thing of the past.

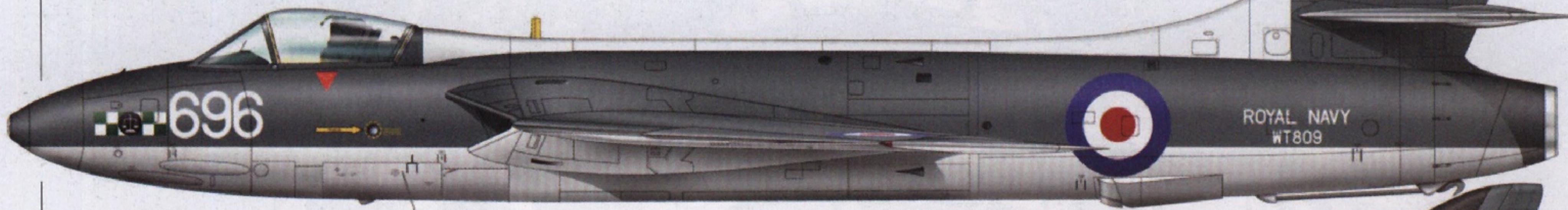
Hawker received an order for three prototypes in

June 1948, two of which were to be powered by the Avon and the third by the Sapphire. Here again, duplication of power plant was an essential consideration as both engines were still unknown quantities. This, however, most probably served to save the life of Camm's new fighter, as will be seen later on.

The earliest configuration of Hawker's design featured a nose intake, mid-fuselage swept wings and a 'T' tailplane. Camm revised his idea about the nose opting for a bifurcated intake in the wing roots similar to that of the Sea Hawk. Swept wing development had already been going on for some time at Hawker's, with the P.1052 and the P.1081 being flown for the first time on 19 September 1948 and 19 June 1950 respectively. This programme was by no means uneventful: on 3 April 1951, Chief Test Pilot, Squadron Leader (Sqn Ldr) 'Wimpey' Wade, lost his life after diving in the P.1081, probably attempting a transonic dive on the experience he had gained on the F-86.

Meanwhile, great thought had gone into the

Hawker Hunter GA.11, WT809/696-LM, No. 764 Squadron NAS, Lossiemouth. Extra Dark Sea Grey uppersurfaces with White undersides. Roundels in six positions; white spine and all lettering/numbers on grey surfaces. Serial repeated under the wings in black

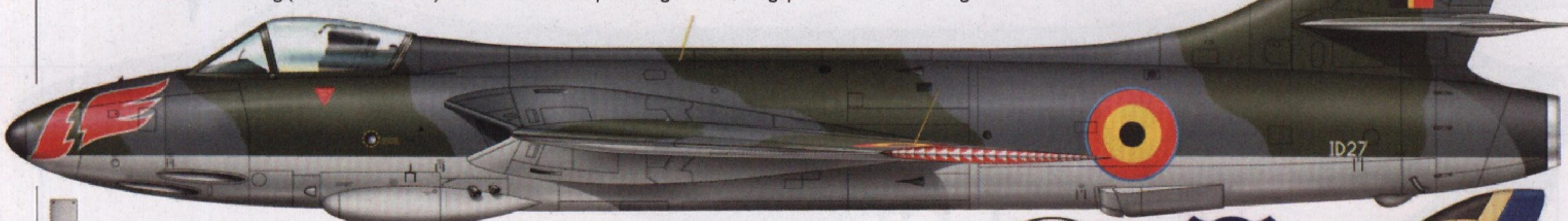


Hawker Hunter FR.10, JX633/K, No. 4 Squadron RAF, Gutersloh (Germany), 1964. Dark Sea Grey/Dark Green/Silver; roundels in six positions. Code and serials in white; serial repeated in black under wings and code repeated in white on red nosewheel door



K

Hawker Hunter F Mk 4, ID27, 350e Escadrille, Belgian Air Force, 1957. Dark Sea Grey/Dark Green/Silver; national markings in six positions, those on fuselage thinly outlined in light blue. Serial in white, repeated in black, within a red circle, on nosewheel door, above starboard wing (inboard of roundel) in white and below port wing in black; wingtips red with white triangles



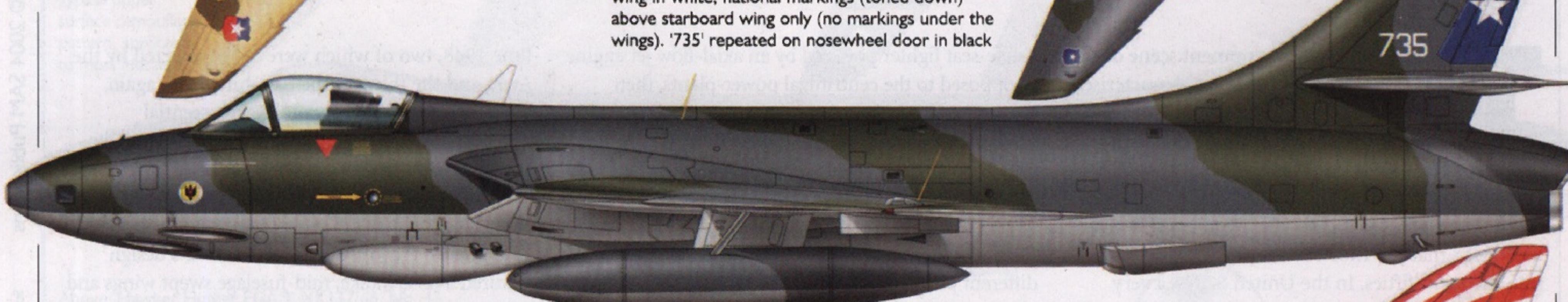
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Hawker Hunter FGA.71, J-702, Grupo N° 9 Panteras Negras, Chilean Air Force, 1976. Dark Earth (FS.20227)/Sand (FS.23594)/Sky Blue (FS.25466) finish with black code on fuselage sides, the latter repeated above port and under starboard wing. '702' in black on nosewheel door; national marking above starboard and below port wing. Note unit badge on nose repeated on fin

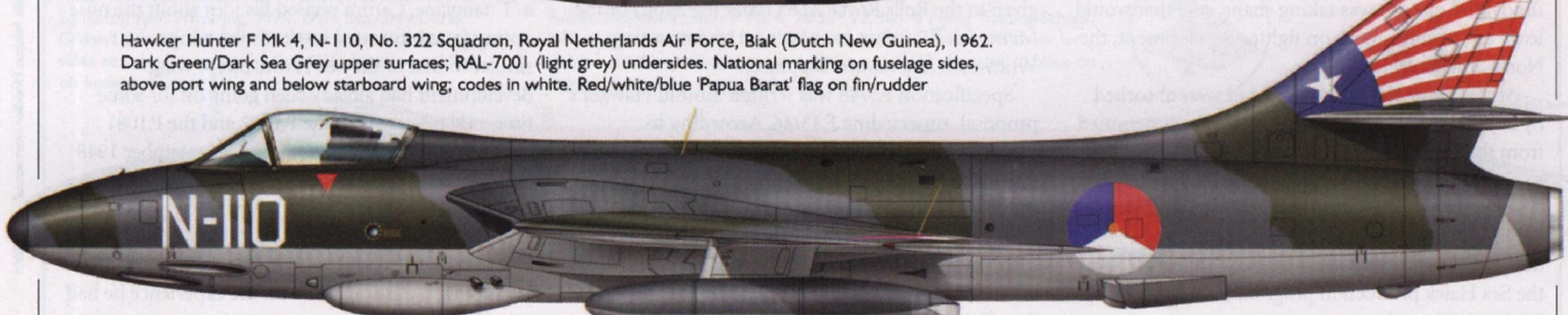


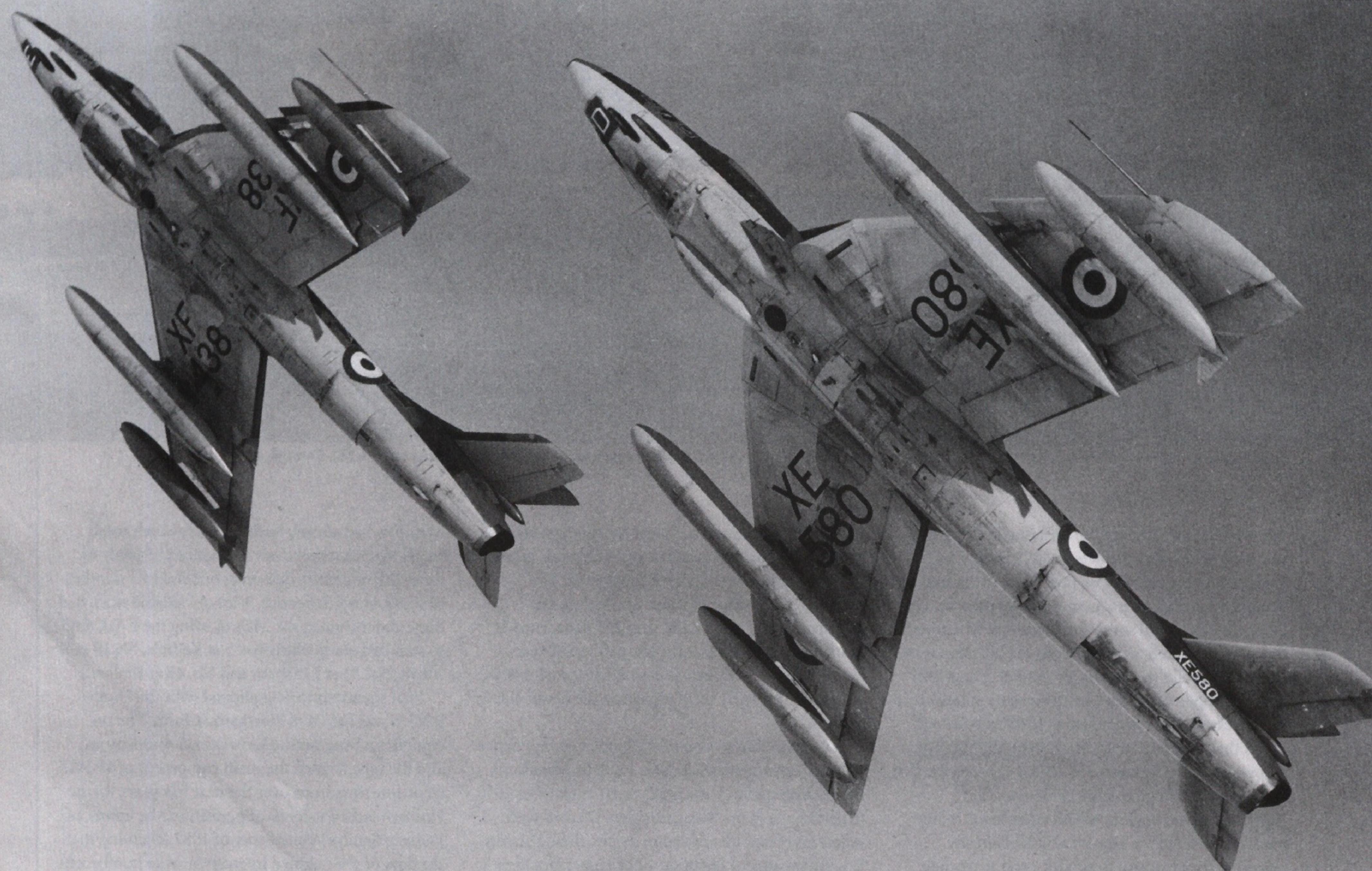
Scrap upper surface view
of CAF FGA.71 scheme

Below & Right: Hawker Hunter FR.71A, J-735, Grupo N° 8, Chilean Air Force, 1994. Dark Sea Grey/Dark Green/Light Aircraft Gray finish with white serial on fin, the latter repeated above port wing in white; national markings (toned down) above starboard wing only (no markings under the wings). '735' repeated on nosewheel door in black



Hawker Hunter F Mk 4, N-110, No. 322 Squadron, Royal Netherlands Air Force, Biak (Dutch New Guinea), 1962. Dark Green/Dark Sea Grey upper surfaces; RAL-7001 (light grey) undersides. National marking on fuselage sides, above port wing and below starboard wing; codes in white. Red/white/blue 'Papua Barat' flag on fin/rudder





The clean lines of the Hunter were retained even in its photo-reconnaissance version, the FR.10, as shown in this superb shot of a pair from No. 4 Squadron (R.J. Caruana Archives)

fighter's armament installation, with Hawker introducing a self-contained gun-pack incorporating not only the four 30mm Aden cannon, but also the breeches and 150 rounds of ammunition per gun. The pack could be changed in the field in less than five minutes. A single pressure refuelling point, situated in the port undercarriage bay, enabled the fighter to be turned round within some eight minutes!

As from September 1948, Hawkers began work on building of a mock-up, and by the end of the following year preparations were in hand to begin cutting metal for the first prototype. "Instruction to Proceed" was in hand by March 1950, enabling Hawkers to initiate production planning for 400 aircraft, equally divided between those to be powered by the Avon and Sapphire. Construction of the first prototype P.1067, named 'Hunter', was well advanced early in 1951. Well before the first flight, an initial contract for 113 examples on 14 March 1951 had been placed.

Due to Wade's demise in April, flight testing of the Hunter programme became the responsibility of Sqn Ldr Neville Duke, beginning with taxiing trials of WB188. The prototype was transferred from Kingston to Boscombe Down, where Duke progressed to ever-higher speeds with each taxiing run. The Hunter took to the air for the first time on 20 July 1951, for a flight of about an hour during which the test pilot flew the aircraft up to 20,000ft. Only a couple of months later, the prototype was shown publicly for the first time at the SBAC Show, Farnborough.

Second Avon prototype (WB195) performed its first flight on 3 May 1952, followed by the Sapphire-powered third prototype (WB202) on 30 November. By that time, the Avon-powered examples were

designated F Mk 1 while the Sapphire-powered Hunters were to be known as F Mk 2s. Camm rightly believed that the Hunter possessed further development potential and forwarded his proposal of the P.1083, which featured higher wing sweep-back and an afterburning engine. This project, however, was cancelled the following year.

The Hunter obtained its first supersonic dive on 24 June 1952 and within a few months orders for the new fighter had reached a total of 550 examples. It was at this point that post-war neglect of the British aviation industry began to be felt, as tools, equipment and qualified personnel were difficult, if not impossible, to find. Gloster relinquished its order for 151 examples as it was incapable of producing them. Production plans set up three main centres; the main Hawker's works at Kingston and at Squires Gate (Blackpool) were assigned the Avon-powered versions, while Armstrong-Whitworth at Bitteswell catered for the Sapphire.

First production Hunter F Mk 1 (WT555) flew for the first time on 16 May 1953 piloted by Frank Murphy. The first Mk 2 (WN888) which was assembled at Baginton flew on 14 October of the same year. Meanwhile, the original prototype (WB188) was fitted with an afterburning Avon RA.79R which provided 9,600lb (4,354kg) thrust, and lateral airbrakes on the rear end of the fuselage. In this form, it received the designation of F Mk 3 and gained the world speed record on 7 September 1953 when Neville Duke clocked 727.63mph (1164.2km/h).

Quite a number of early series examples were used as development aircraft, with initial deliveries of F Mk 1s going to the Central Flying Establishment, West Rayham; first front-line squadron to receive the type was No. 43 Squadron at RAF Leuchars in July

1954. Later that same year, in October, it was the turn of No. 222 Squadron with No. 54 being the third (and last) F Mk 1 unit, receiving its new aircraft in February 1955 at Odiham.

Problems and Solutions

As was to be expected, the Hunter suffered its share of teething troubles. In fact, certain problems necessitated detail redesign in certain areas, features which eventually appeared as standard on later marks. Rear buffeting was experienced but quickly cured with the introduction of a bullet fairing at the tailplane/rudder end junction. The acute rear-view restriction was only partially offset by a slight modification of the canopy. Other serious problems emerged, such as tailplane pitch-up at high Mach numbers.

Probably the most immediate and critical point was fuel shortage. The original internal tankage of 324 gallons (1473 litres) provided the Hunter with very short legs. Wing leading edge tanks were later introduced, partially easing the problem, but the thirsty Avon (and far more thirsty Sapphire) could only be quenched by the introduction of external tanks.

Pitch problems were eventually ironed out by the extension of the outer wing leading edges. The original theory that the wing flaps could double as air brakes did not work well and called for further elaboration. Attempts were made to install perforated flaps and fuselage side airbrakes, none of which were considered acceptable. A solution was finally found in installing a ventral airbrake under the rear fuselage. This came as a 'bolt-on' unit and remained so from the 20th production aircraft onwards, no effort being made to incorporate this feature within the airframe!

The 'Achilles Heel' of the Hunter was to be its



One of a number of Hawker Hunters F.47B that were ferried through Malta on 2 July 1976. Of particular interest is their three-tone upper scheme (R.J. Caruana)

four-cannon armament. The earliest gun firing trials had been positively conducted with a Sapphire-engined Hunter, and this version was to be spared the troubles that plagued its Avon-powered partner. The latter engines would surge and flame-out whenever the guns were fired, as gasses from the breeches were ingested through the nearby air-intakes. It was only thanks to Rolls Royce's speedy intervention (and, to a certain extent, the total failure of the Supermarine Swift) that the Hunter was saved from the axe. The 200-series Avons featured a modified compressor that insured against engine surge problems. The Sapphire-engine version, on the other hand, would hardly have saved the Hunter, as it had already proved more expensive to produce and to operate.

As already mentioned, the gun pack design was a radical feature in itself. The only modifications in this area consisted of the addition of curved chutes for the shell cases and faired collectors (nicknamed 'Sabrinas') for their links, as some airframe damage had been experienced before these modifications had been introduced.

More Hunter Versions

Apart from the three front-line squadrons already mentioned, 25 Hunter F Mk 1s were delivered to No. 229 Operational Conversion Unit (OCU) at Chivenor in 1955, with a second Hunter OCU (No. 233) being established at Pembrey the following year. Sapphire-powered F Mk 2s had, in the meantime, already entered service with No. 257 Squadron in September 1954 followed by No. 263 Squadron in January of the following year, forming the Wattisham Wing. Production of the F Mk 2 was cut back to the 45 examples shared by these two units.

Hawker's next version of the Hunter was the F Mk 4. This was the first version to introduce underwing hardpoints for the attachment of external 100-gallon (454 litres) fuel tanks. It was also fitted with the strengthened wing that, apart from incorporating internal leading edge fuel tanks, had additional hardpoints enabling it to carry a wide variety of stores, including bombs or rockets. The first of 356 examples of this mark was WT701. No less than 22 RAF squadrons were equipped with the type, particularly well known being No. 111 Squadron which received its Mk 4s in June 1955. The majority of these squadrons were ex-Sabres units based in Germany. Among those who received this mark of Hunter on the home front was No. 54, replacing the Mk 1s as its older machines were transferred to OCUs.

Next in line was the F Mk 5, which incorporated all the new features introduced on the F Mk 4 while retaining the Sapphire Mk 101 of the earlier F Mk 2. A total of 105 examples of this mark were built by

Armstrong Whitworth at Coventry, the type entering service with No. 56 Squadron at Waterbeach in May 1955 in replacement of the ill-fated Swift. The Hunter F Mk 5 enjoyed wider use, having also equipped Nos. 1, 34, 41, 257 and 263 Squadrons. It is of interest to record that the last two squadrons mentioned did not dispose entirely of their F Mk 2s, but continued to fly them alongside the newer Mk 5s well into 1957.

It was also this version of the Hunter to experience 'combat' operations when Nos. 1 and 34 Squadrons were transferred to Nicosia (Cyprus) in October 1956 to participate in the Suez campaign. Daubed with yellow and black identification stripes, these Hunters flew strikes against Egypt on 1 November, but their limited range made their efforts ineffective. In fact, no air-to-air combats were reported; two Hunters were lost when they were blown up by EOKA terrorists.

A Real Hunter Emerges

Work on the P.1083, which had been 80 percent complete before being cancelled in July 1953, did not go to waste. Not enough development had been registered with the re-heat version of the Avon, so the possibility of an RA.19R-powered Hunter was dismissed. However, numerous components of the P.1083, particularly those pertaining to the fuselage, were suitably modified and eventually flown as the P.1099. In this way, XF833 became the Hunter F Mk 6 prototype, flying for the first time on 22 January 1954 from Dunsfold with Neville Duke at the controls.

'Bill' Bedford flew the first of seven development F Mk 6s (WW592-WW598) on 25 March 1955, this example being joined by all the other aircraft in the flight test programme by the end of that year. XE526, the first production F Mk 6, was flown by Hugh Merewether on 11 October 1955, with deliveries of the new mark to Maintenance Units (MU) beginning in January of the following year. The type's entry into squadron service had to be considerably delayed, however.

The Rolls Royce Avon 203 installed in this version provided some 30 percent extra thrust and had been certified against surging problems encountered with earlier marks. Pitch-up problems caused by the increase in power were soon ironed out with the introduction of a modified wing leading edge, featuring an extended outer section. This resulted in a 'saw-tooth' edge, a characteristic feature of all marks of Hunter that were to follow. During gun firing trials pitch-down problems were encountered, and these were eventually cured with the introduction of muzzle blast deflectors.

Solutions such as those mentioned above were introduced on the production lines when some 100

examples had already been built. However, these mods were retrospectively introduced not only to those Mk 6s already delivered, but also to a number of F Mk 4s still in service. A lot of valuable work had been undertaken at the MUs to bring the F Mk 6 up to standard, particularly No. 5 at Kemble, No. 19 at St Athan, No. 33 at Lyneham and No. 45 at Kinloss.


First squadron to be equipped with the Hunter F Mk 6 was No. 74 at Horsham St Faith. The re-equipment programme soon gained momentum, and the type formed the main equipment of 19 RAF front-line squadrons over the next few years. As the Hunter reached its peak of perfection, the infamous Duncan Sandys White Paper of 1957 (claiming that the days of the manned interceptor were numbered) brought about the cancellation of the last 150 F Mk 6s on order. Far more significant was the total cancellation of a number of extremely important projects then in hand, including TSR.2... but that is another story!

A solo display by the Hunter could thrill crowds at any airshow, but that was nothing in comparison with the sight of 22 aircraft from No. 111 Squadron in formation ('The Black Arrows') following their leader Sqn Ldr Peter Latham in a perfect loop! On conversion of 111 Squadron to Lightnings in 1961, the task of providing the RAF with an official aerobatic team fell on No. 92 Squadron, whose all-blue Hunters were appropriately named 'the Blue Diamonds'.

Regenerating the Hunter

The cancellation of remaining orders meant that Hunter production for the RAF ended with XK156 on 9 July 1957. This aircraft was to be the last single-seat Hunter built for the RAF, all other versions that came later were rebuilt from earlier marks. The first such major conversion was initiated in 1958 when Hawker Aircraft Ltd were requested to convert 100 F Mk 6 Hunters to replace the ageing de Havilland Venom in the ground-attack role in the Middle East. Fitted with the Avon 207, the FGA.9 also featured strengthened wings and tropical equipment.

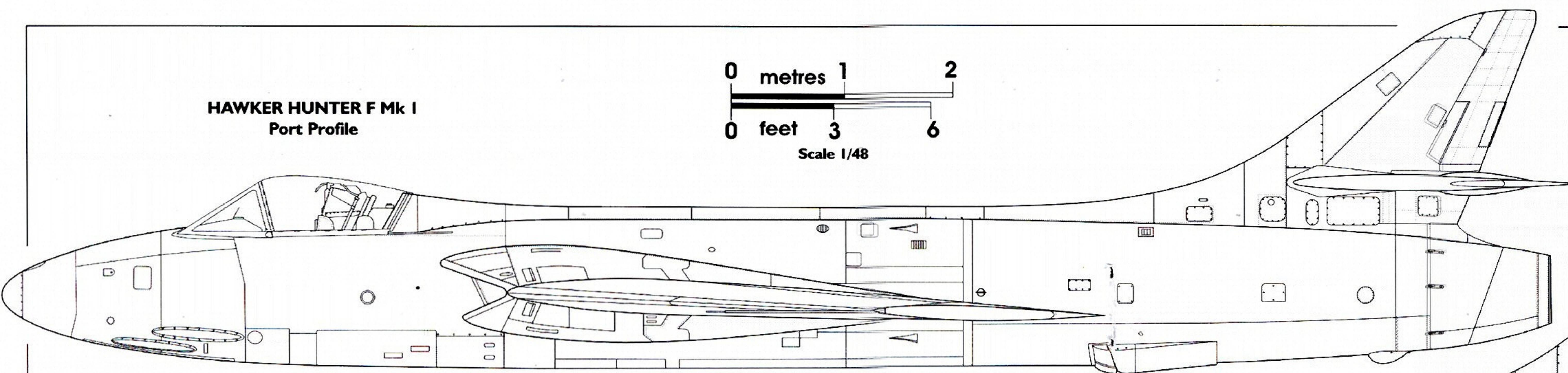
Immediately noticeable was a 'hump' added above the rear fuselage, housing a 13' 6" (4.15m) diameter braking parachute. Apart from retaining the four 30mm Aden cannon, this new version of the Hunter could pack quite a punch under its strengthened wings. Four underwing stations could carry up to two 1,000lb (450Kg) loads of ordnance each, including practice bomb carriers, 2" or 3" rockets in various configurations, or the standard 100 gallon (454 litre), apart from the new 230 gallon (1045 litre) drop tanks. The latter, being longer than previous drop tanks fitted to the Hunter, necessitated a cut-out in the flaps, and their installation was undertaken at RAF MUs.



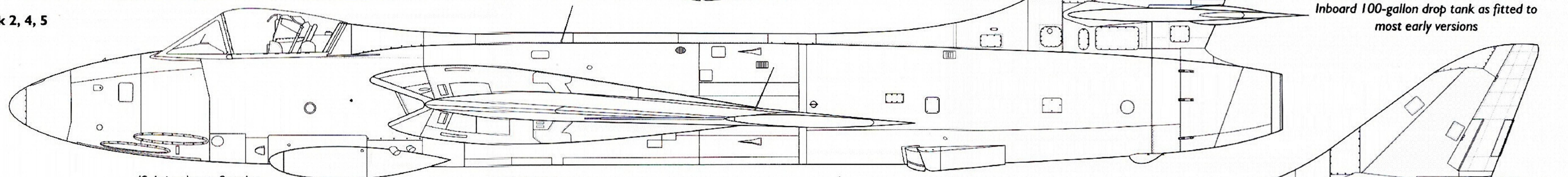
Drawings by
Richard J. Caruana
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HAWKER HUNTER F Mk 1
Port Profile

0 metres 1 2
0 feet 3 6
Scale 1/48

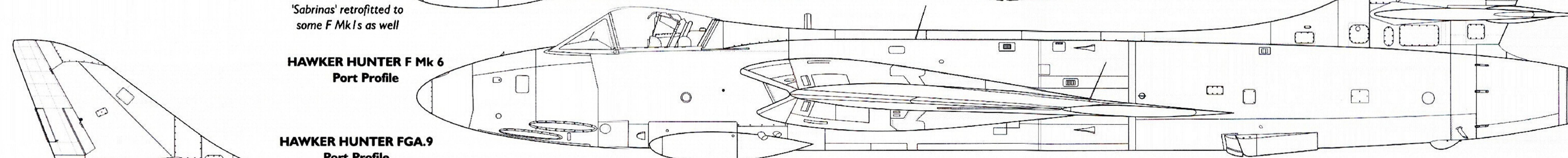


HAWKER HUNTER F Mk 2, 4, 5
Port Profile

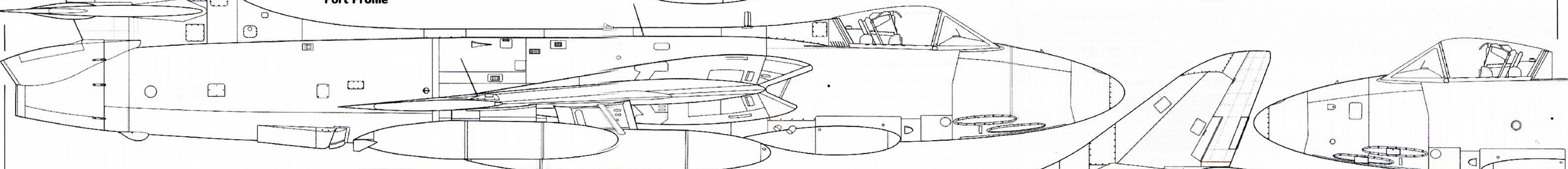


Inboard 100-gallon drop tank as fitted to most early versions

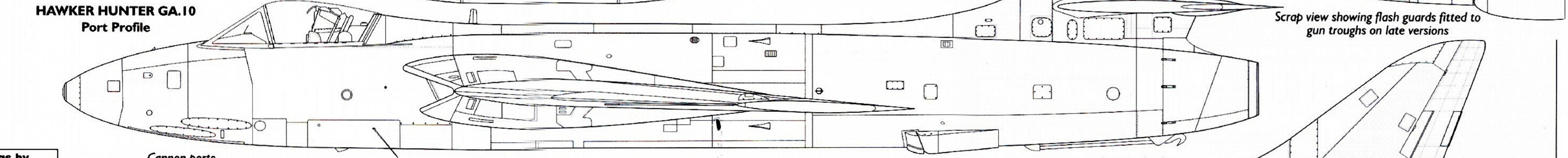
HAWKER HUNTER F Mk 6
Port Profile



HAWKER HUNTER FGA.9
Port Profile

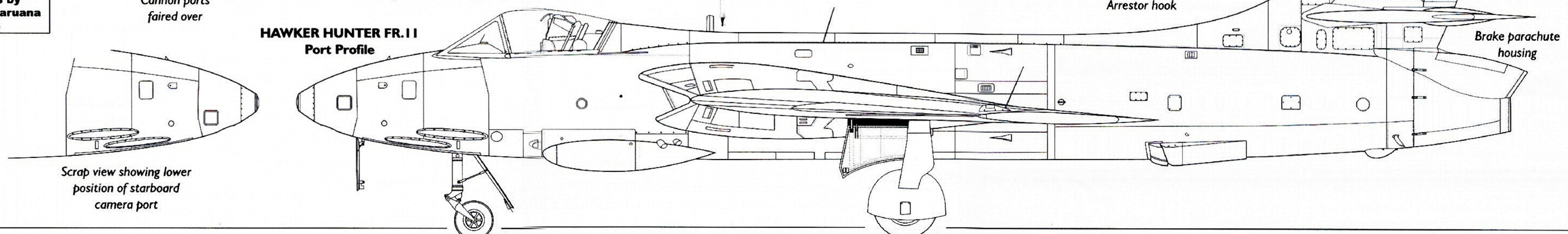


HAWKER HUNTER GA.10
Port Profile

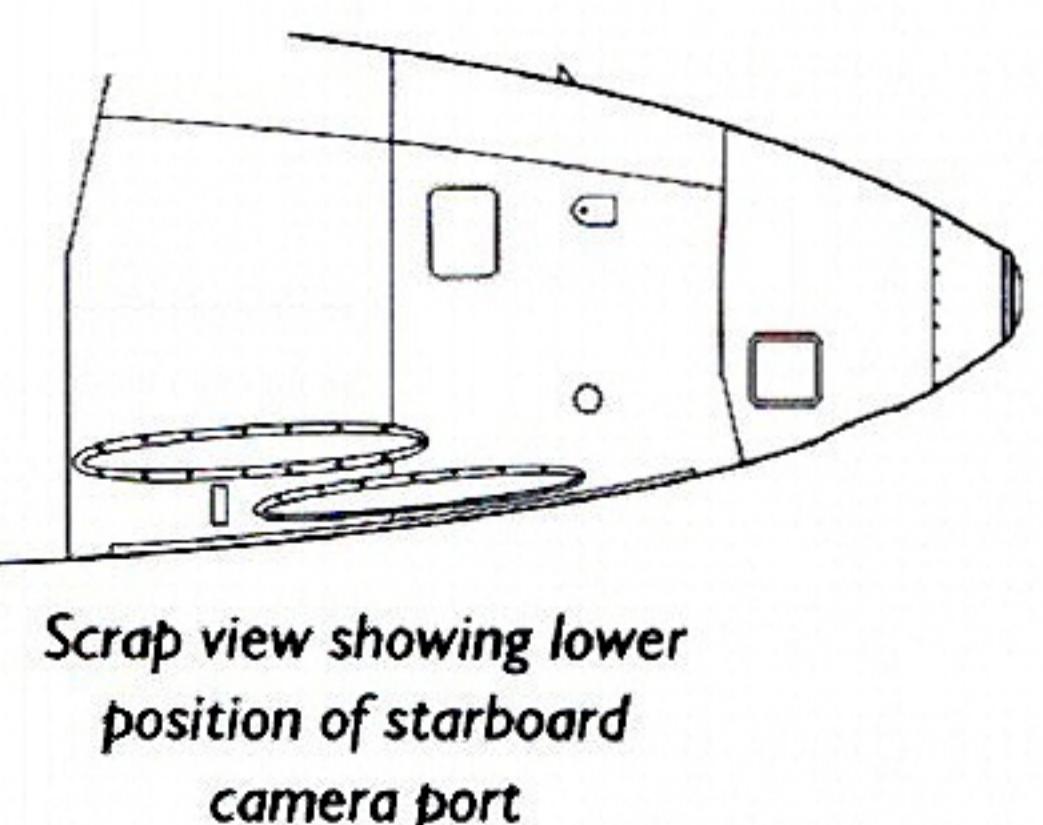


Scrap view showing flash guards fitted to gun troughs on late versions

HAWKER HUNTER FR.11
Port Profile



Drawings by
Richard J. Caruana
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Hawker Hunter F.56, BA341, No. 14 Squadron 'Bulls', Indian Air Force. Dark Sea Grey/Dark Green/Silver finish, with national markings in six positions; saffron arrowhead aft of fuselage roundel, outlined in white; serial in black



BANNERS

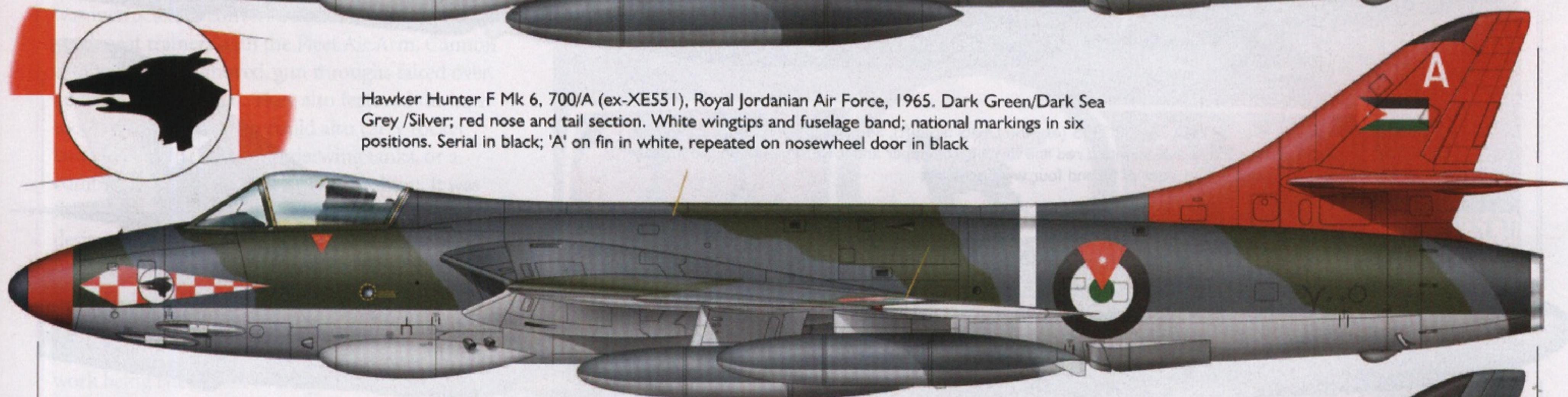
Hawker Hunter F.56, A476, 'The Banners' Target Towing Flight, Indian Air Force, Kalaikunda, 1999. Light Grey/Dark Green uppersurfaces with Silver undersides; national markings in six positions. Serial in black, repeated on nosewheel door



Hawker Hunter F Mk 6 (ex-Belgian Air Force), 661, Iraqi Air Force, October 1966. Dark Sea Grey/Dark Green/Light Aircraft Grey; red nose, wingtips and tail assembly. '661' in white; triangular national marking in six positions



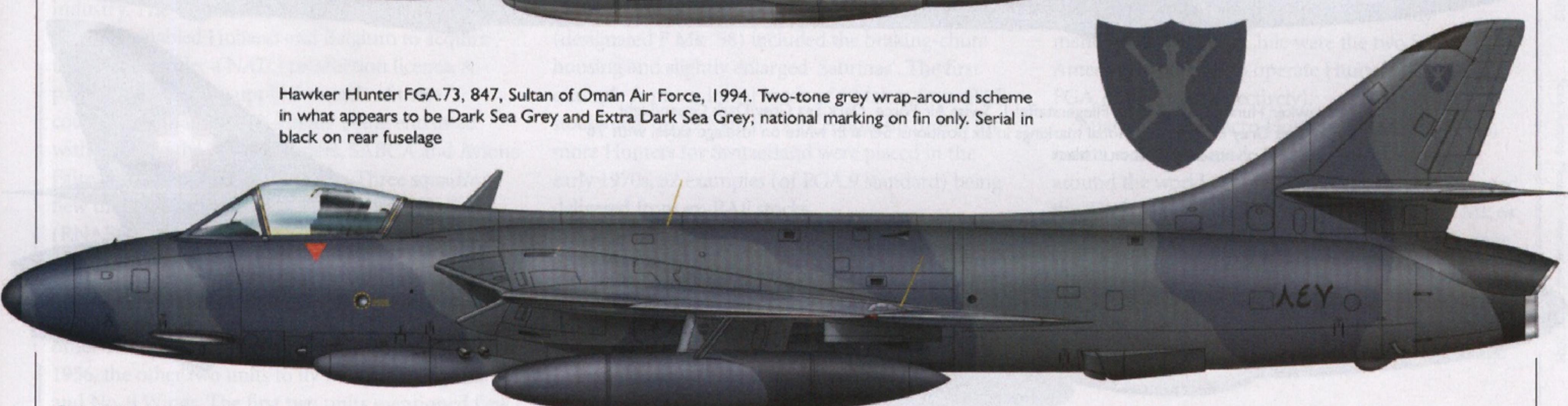
Hawker Hunter F Mk 6, 700/A (ex-XE551), Royal Jordanian Air Force, 1965. Dark Green/Dark Sea Grey /Silver; red nose and tail section. White wingtips and fuselage band; national markings in six positions. Serial in black; 'A' on fin in white, repeated on nosewheel door in black



Hawker Hunter FGA.80, 806, Kenyan Air Force, 1975. Gloss Dark Sea Grey/Dark Green /Light Aircraft Grey finish; national markings on fuselage sides and above wings only. Serial '806' in black, '6' repeated (also in black) on nosewheel door

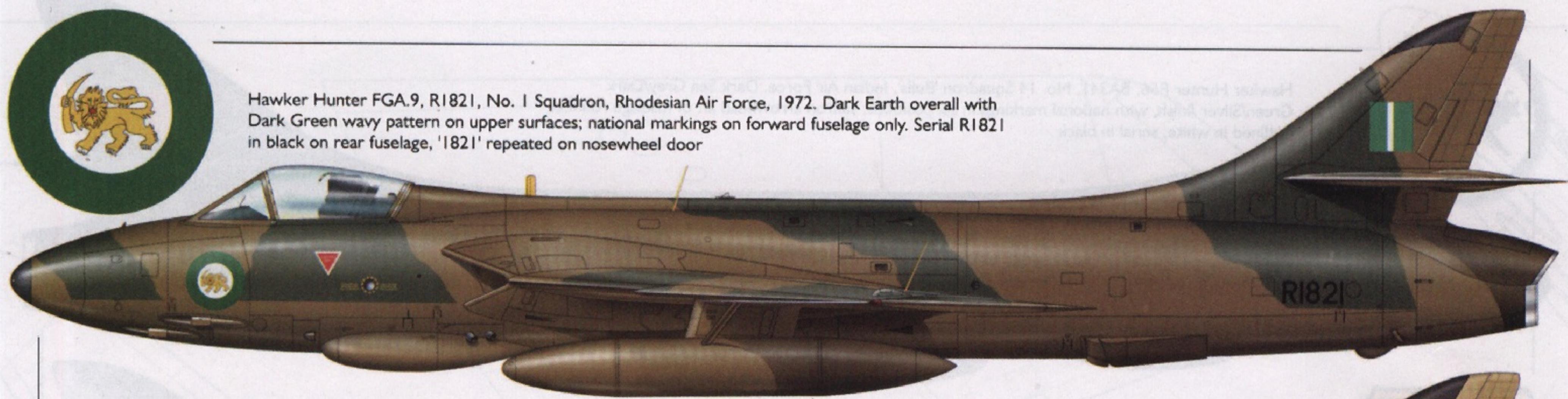


Hawker Hunter FGA.73, 847, Sultan of Oman Air Force, 1994. Two-tone grey wrap-around scheme in what appears to be Dark Sea Grey and Extra Dark Sea Grey; national marking on fin only. Serial in black on rear fuselage

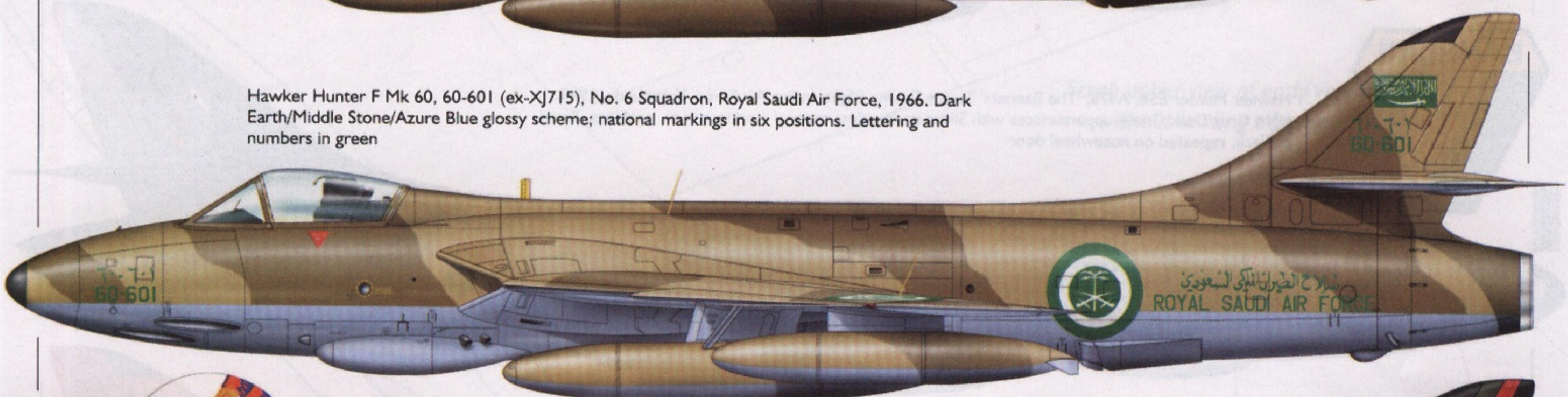




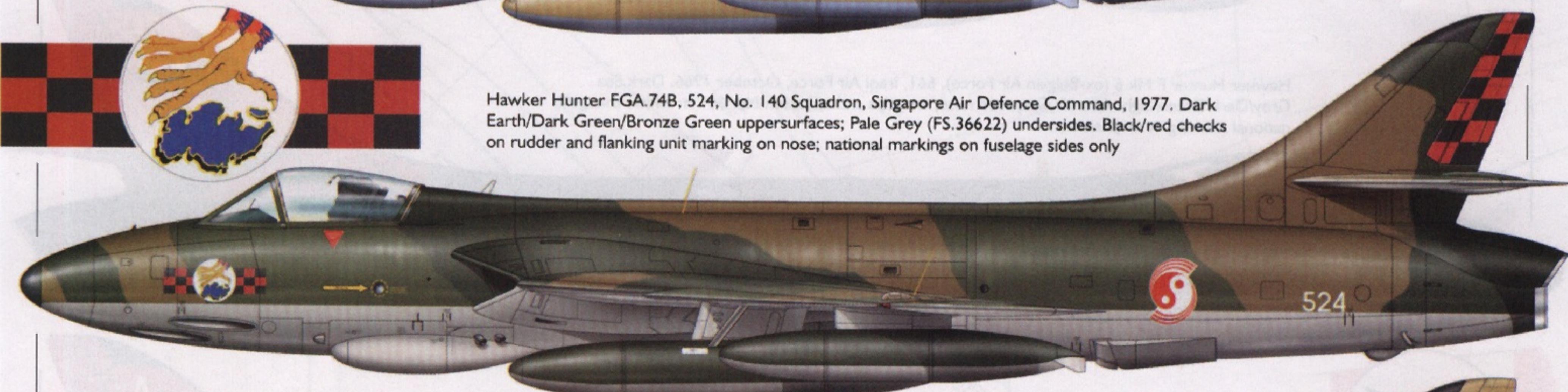
Hawker Hunter FGA.9, R1821, No. 1 Squadron, Rhodesian Air Force, 1972. Dark Earth overall with Dark Green wavy pattern on upper surfaces; national markings on forward fuselage only. Serial R1821 in black on rear fuselage, '1821' repeated on nosewheel door



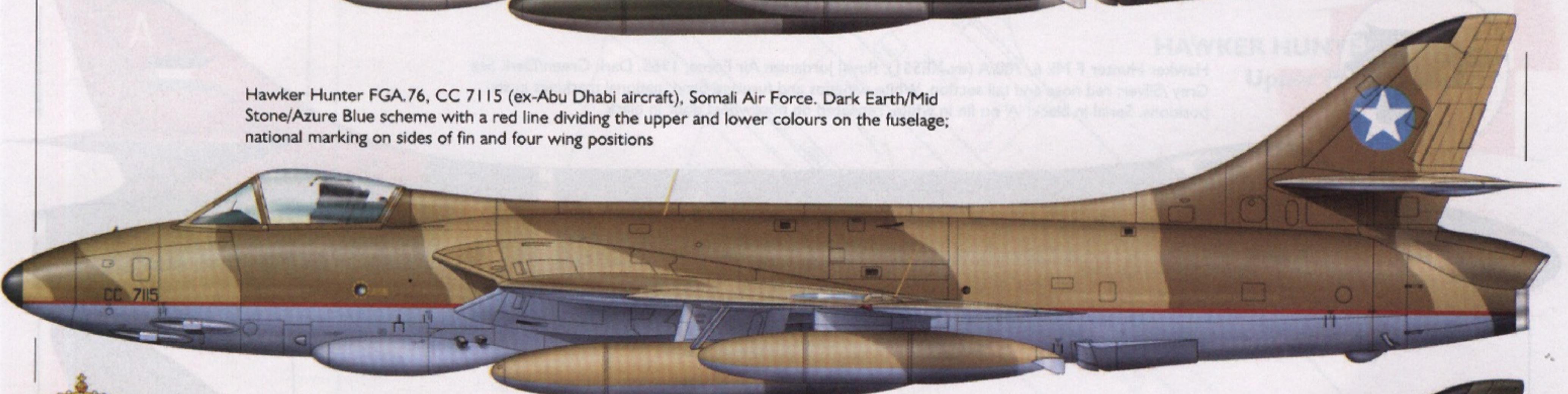
Hawker Hunter F Mk 60, 60-601 (ex-XJ715), No. 6 Squadron, Royal Saudi Air Force, 1966. Dark Earth/Middle Stone/Azure Blue glossy scheme; national markings in six positions. Lettering and numbers in green



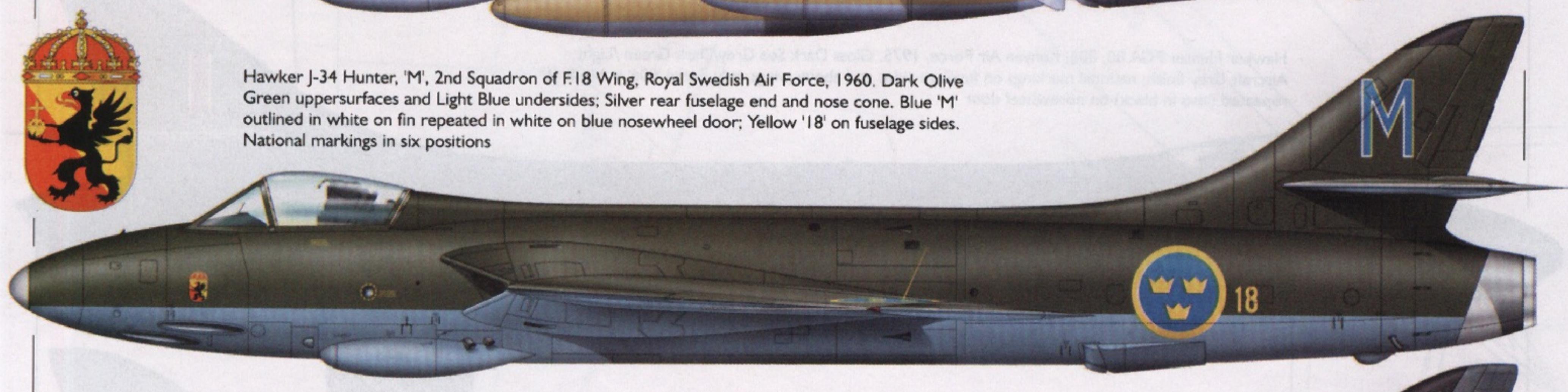
Hawker Hunter FGA.74B, 524, No. 140 Squadron, Singapore Air Defence Command, 1977. Dark Earth/Dark Green/Bronze Green uppersurfaces; Pale Grey (FS.36622) undersides. Black/red checks on rudder and flanking unit marking on nose; national markings on fuselage sides only



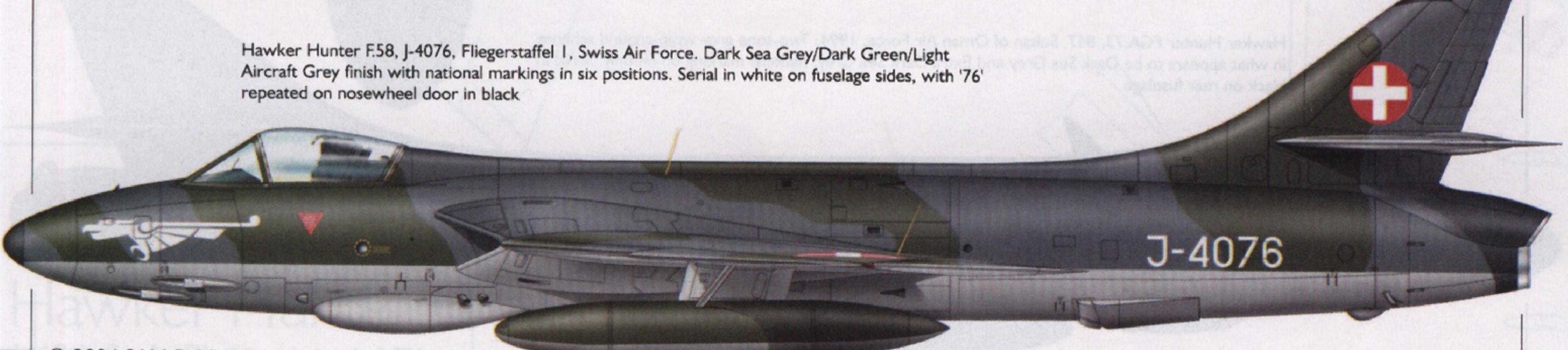
Hawker Hunter FGA.76, CC 7115 (ex-Abu Dhabi aircraft), Somali Air Force. Dark Earth/Mid Stone/Azure Blue scheme with a red line dividing the upper and lower colours on the fuselage; national marking on sides of fin and four wing positions

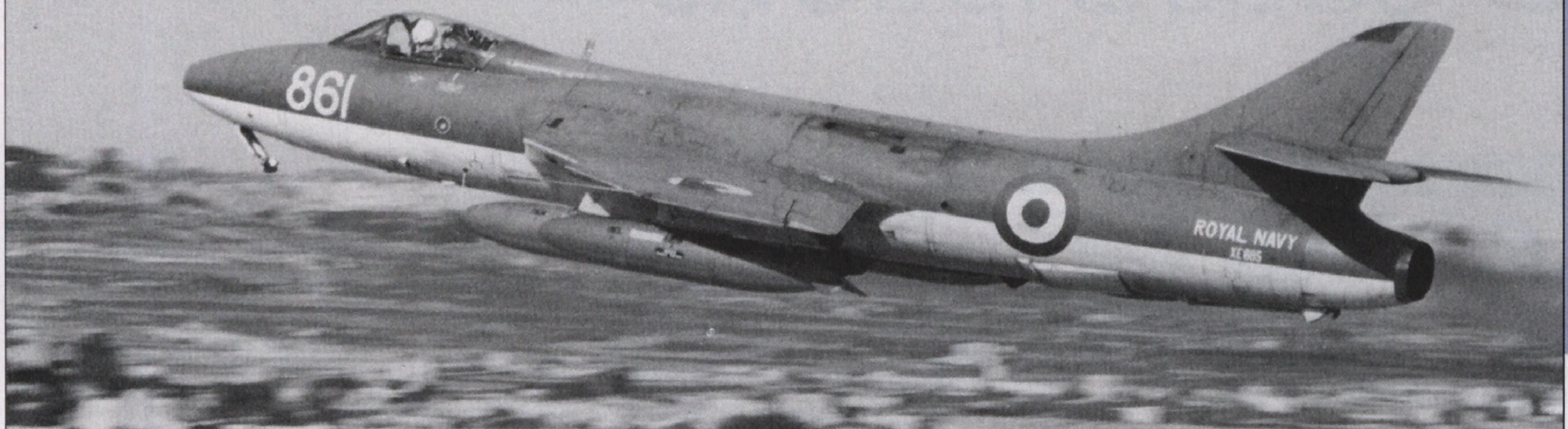


Hawker J-34 Hunter, 'M', 2nd Squadron of F18 Wing, Royal Swedish Air Force, 1960. Dark Olive Green uppersurfaces and Light Blue undersides; Silver rear fuselage end and nose cone. Blue 'M' outlined in white on fin repeated in white on blue nosewheel door; Yellow '18' on fuselage sides. National markings in six positions



Hawker Hunter F.58, J-4076, Fliegerstaffel 1, Swiss Air Force. Dark Sea Grey/Dark Green/Light Aircraft Grey finish with national markings in six positions. Serial in white on fuselage sides, with '76' repeated on nosewheel door in black





Flight Requirements Unit Hawker GA.11 Hunter XE685/861 seen here on take off in the mid-1970s. The FRU (later FRADU) was set up in the early '50s to supplement the activities of No.711 NAS FRU (R.J. Caruana)

A reconnaissance role for the Hunter had been envisaged for quite some time, so much so that Hawkers had installed a five-camera nose on an F Mk 4 (WT780) as a private venture. This proposal earned the company a contract to convert 40 Hunters F Mk 6 to take a simpler, 3-camera nose, the first prototype (XF429) flying for the first time on 7 November 1959. First unit to receive the Hunter FR.10 was No. 4 Squadron in January 1961, followed by the only other squadron to operate the type, No. 2, the following March, both based in Germany. These Hunters were eventually replaced during 1970 with Phantoms FGR.2 (No.2) and Harriers GR.1 (No. 4).

The final single-seat version to appear was the navalised Hunter. During the early 1960s, Hawker was instructed to convert a batch of 40 F Mk 4 as single seat trainers with the Fleet Air Arm. Cannon armament was removed, gun throats faired over, and 'Sabrinas' deleted. They also featured the 'saw-tooth' edge wing, which could also carry rocket launchers, or 100 gallon underwing tanks, or a combination of both. In true navy fashion, it was fitted with an arrestor hook. In this form it was designated Hunter GA. 11, while a few examples fitted with a camera nose similar to that of the FR.10 were known by the designation of PR.11A.

Navy Hunters began their operations in 1962 with No. 738 and 764 Naval Air Squadrons (NAS), their work being later taken over by the Fleet Requirements and Air Direction Unit (FRADU). The first Hunter GA.11 (WV267) for FRADU arrived at Hurn on 27 March 1969, the type enjoying a long operational life, being retired from service in 1995. During that time a powerful Harley Light was fitted in the nose. Apart from their mundane training duties, four of these Hunters also formed an aerobatic team, 'The Blue Herons'.

Hunter for Sale

Hawker's thoroughbred was certainly the best single-seat, post-war export seller from the British aviation industry. The United States' Offshore Procurement Program enabled Holland and Belgium to acquire the Hunter under a NATO production licence. A pattern F Mk 4 was supplied to each of these countries in March 1955, Fokker being entrusted with building the Dutch Hunters, SABCA and Avions Fairey building those for Belgium. Three squadrons flew the Hunter in the Royal Netherlands Air Force (RNAF), namely Nos. 324, 325 and 327. Although originally all orders were to be of the F Mk 4, Fokker changed over to building the F Mk 6 during 1957.

First of 112 Hunters F Mk 4 from the Belgian order were delivered to No. 7 Wing at Chievres in 1956, the other two units to fly the type being No. 1 and No. 9 Wings. The first two units mentioned flew the Hunter briefly, while No. 9 Wing continued to

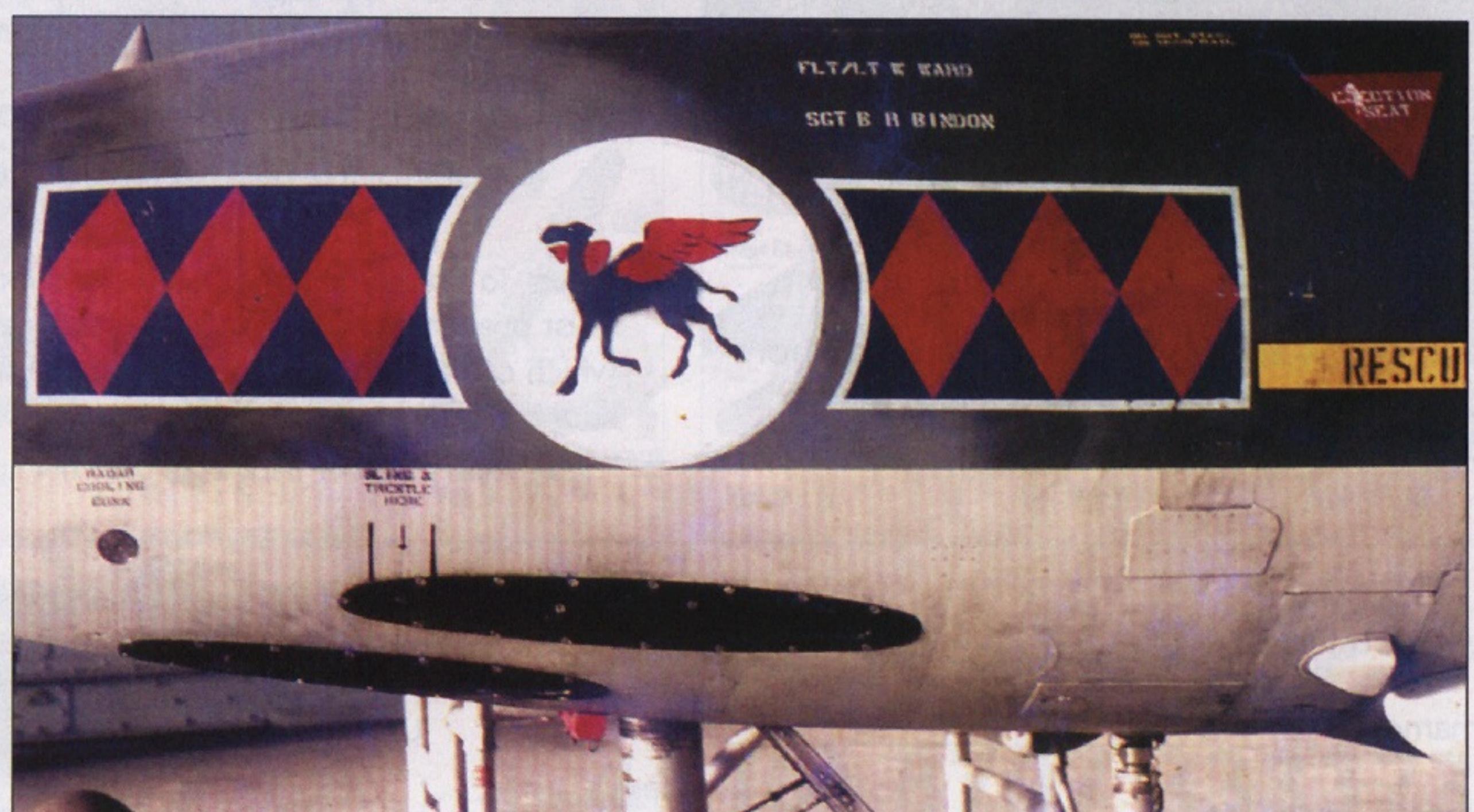
operate the F Mk 6s up to 1963. A complete list with details of all Hunter exports cannot be compressed into these few pages, so the following is but a summary.

Sweden showed an early interest in the Hunter, having placed an order for 120 F Mk 50s, the first of which flew on 24 June 1955. As is normal practice in Swedish Air Force service, the type was redesignated J-34, equipping four wings. The 'Acro Hunters' aerobatic team was formed in 1962.

Denmark followed hotly on the heels of Sweden with an order for 30 Hunters to F Mk 4 standard, officially known as F Mk 51. To earn the Swiss order,

(F.56, F.56A), an order for 160 examples having been placed with Hawkers in September 1957, all to F Mk 6 standard. India acquired further batches of Hunters, these being all refurbished machines coming mainly from surplus ex-Belgian and Dutch stocks. During the conflicts with Pakistan of 1965 and 1971, Indian Hunters were bloodied in action. 'The Banners' Target Tug flight were still flying six single-seat F.56 Hunters in 2000 and sources claim that they are still in service. Their present status, however, could not be established with certainty.

A number of Hunters were also exported to African countries, including Kenya (FGA.9) and



Detail of No. 45 Squadron's nose marking carried on an FGA.9, photographed at Wittering in 1972. Note pilot and crew chief's names in white under the cockpit (R.J. Caruana)

the Hunter had to compete against the F-86 and Mystere IV. The two F Mk 6s sent for this competition (XE587, XE588) won the contest with a wide margin, the prize being an order for 100 examples which though similar to the F Mk 6 (designated F Mk 58) included the braking-chute housing and slightly enlarged 'Sabrinas'. The first example from an initial batch of 12 taken from RAF stocks flew on 29 March 1958. Follow up orders for more Hunters for Switzerland were placed in the early 1970s, 52 examples (of FGA.9 standard) being delivered from ex-RAF stocks.

Middle East customers found the Hunter ideal for their needs, and they included Abu Dhabi (FGA.76, FR.76A), Iraq (F Mk 6, FGA.59, FGA.59A, FGA.59B), Jordan (F Mk 6, FGA.9, FR.73B), Kuwait (F Mk 57), Lebanon (F Mk 6, FGA.70, FGA.70A), Oman (various marks), Qatar (FGA.78) and Saudi Arabia (F Mk 6).

A major overseas user of the Hunter was India

Zimbabwe (FGA.9), while Somalia operated a number of different marks, particularly F.76s passed on to that country from Abu Dhabi. Singapore was the only operator of the Hunter in the Far East (FGA.74, FR.74A) apart from India, already mentioned. Peru and Chile were the two South American countries to operate Hunters (F.52 and FGA.71, FR.71A respectively).

Apart from the 'Acro Hunters' flown by Sweden, mention must be made of other aerobatic teams around the world who flew Hunters. Belgium formed the 'Diables Rouges' in the early 1960s flying F Mk 6s painted entirely in red. Better known in Europe were the 'Patrouille Swiss', who celebrated 30 years of flying during their 1991 season. The Indian Air Force 'Thunderbirds' wore a particularly attractive scheme of dark blue with white lightning flashes on fuselage and wings.

Richard J. Caruana

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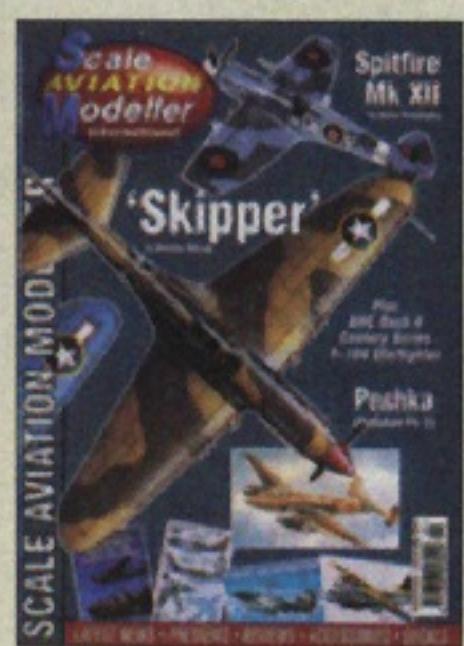
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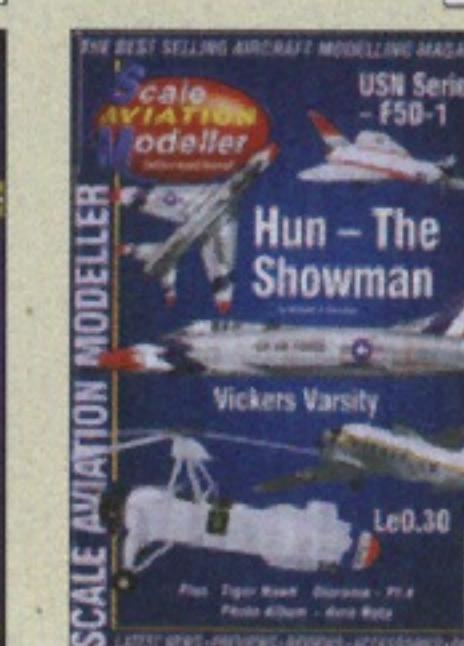
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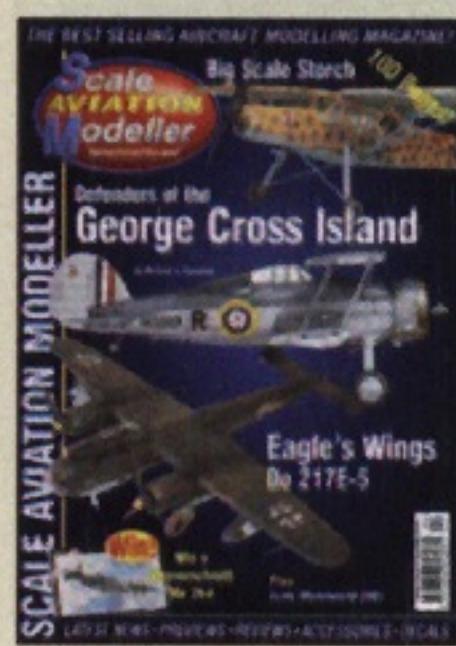


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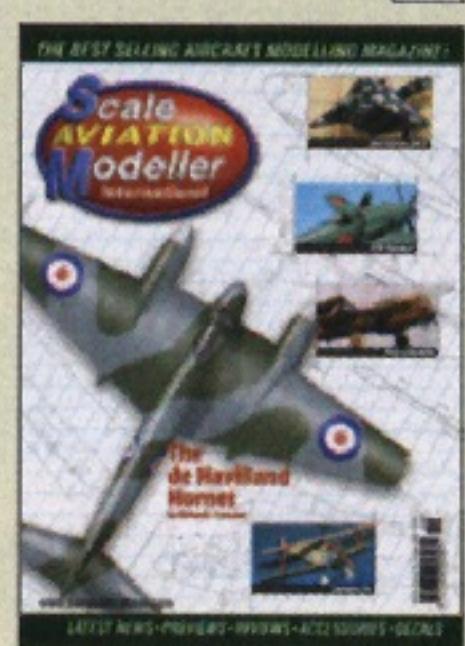
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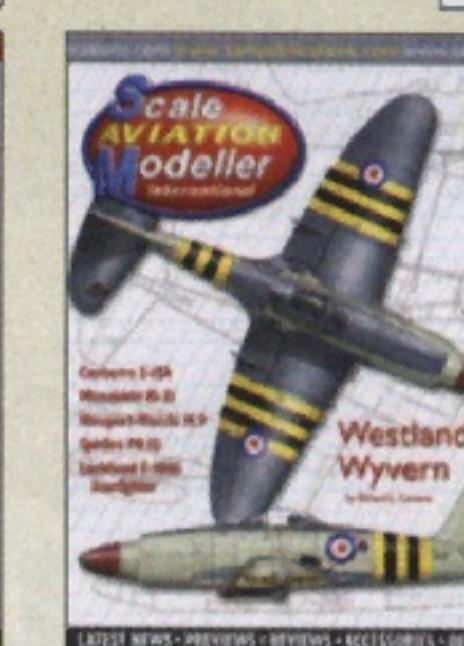
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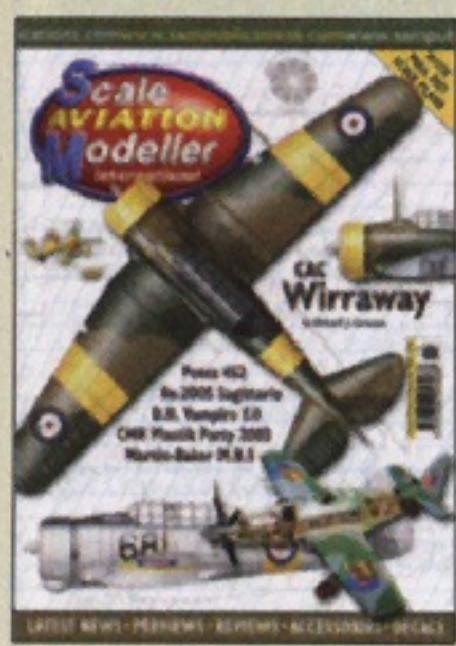
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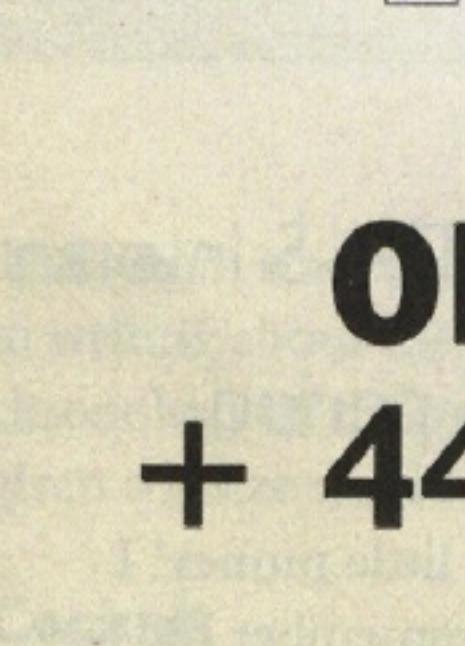
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Greif, what a lot of work!

1/72nd Scale

Manufactured by

by John McIlmurray

A conversion of the Revell 1/72nd He 177A-5 into an early A-3 from the 'Operation Steinbock' period

I wasn't old enough to have modelled the Airfix He 177; I have not even seen one! I am in no position therefore to offer any comments on how the Revell offering compares? [A comparison of the *Wright Flyer* to *Concorde* comes to mind - Ed (who is old enough to have built it, five times!)] I am sure one can say with confidence that the main difference would be in the tooling. While this is sure to be true it does not necessarily mean that the old Airfix kit is less accurate - indeed it will be seen later that a number of features in the Revell kit could have been more accurately portrayed. I hope I can get my hands on the Airfix kit one day to find out for myself.

When it comes to price-to-detail ratio, Revell are in a league of their own, and I hope that photos 1 to 5 do some justice to what is an awful

lot of kit for very little money! I certainly cannot remember the last time I was faced with a 23-page instruction booklet?

As for the aftermarket side of things, photos 6 & 7 show what is on offer from CMK and Falcon. The CMK parts are excellently cast, but so fine is some of the detail, that damage is sure to occur. Currently on offer is their Undercarriage Set, Exterior Set and Engine Set (plus horizontal stabilisers). Only one item was discarded as inaccurate, but more of that later.

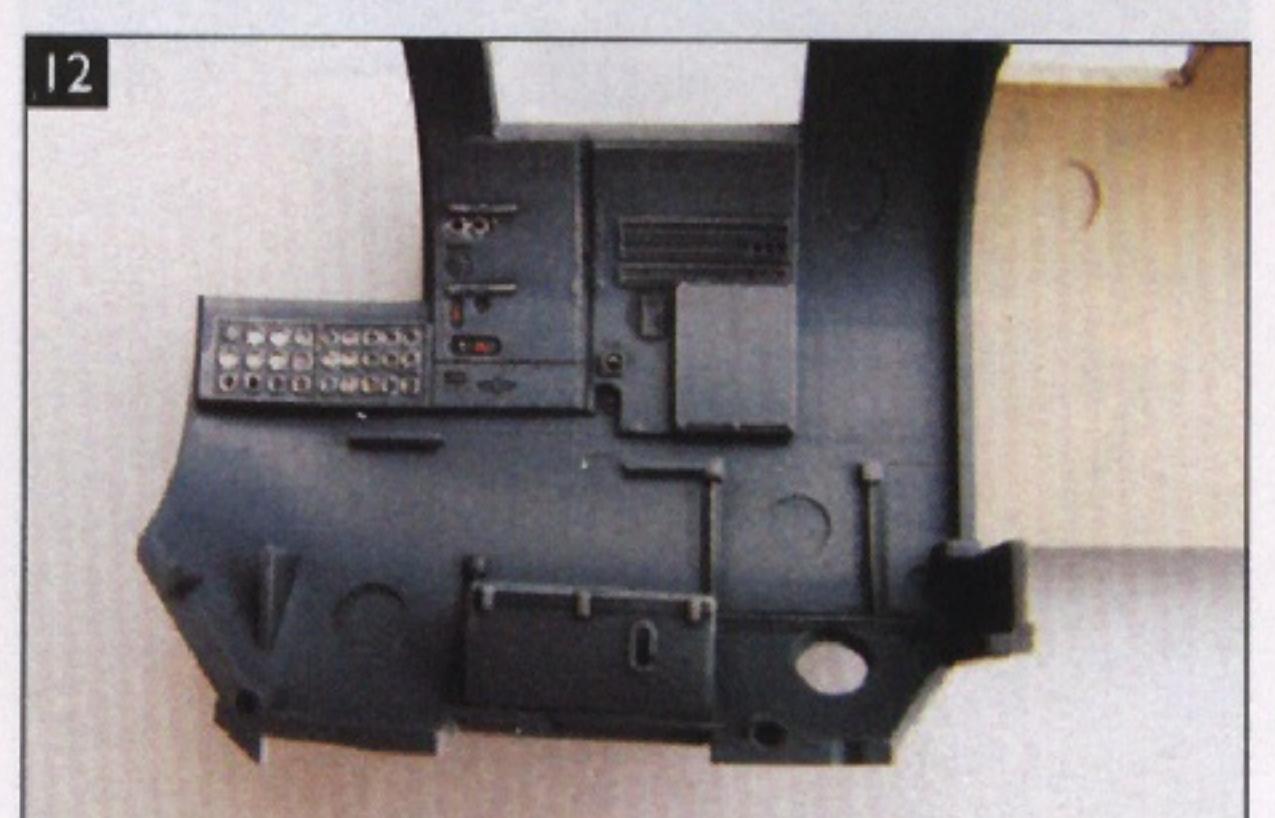
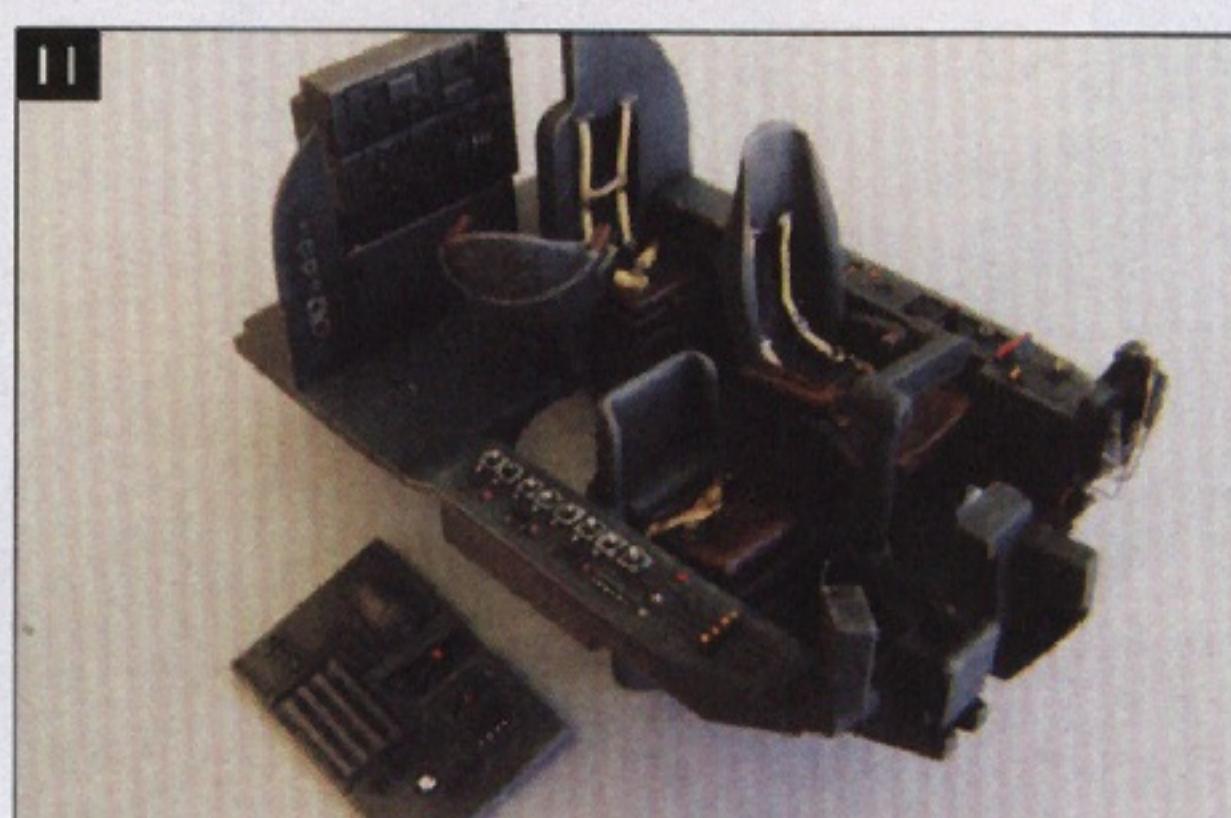
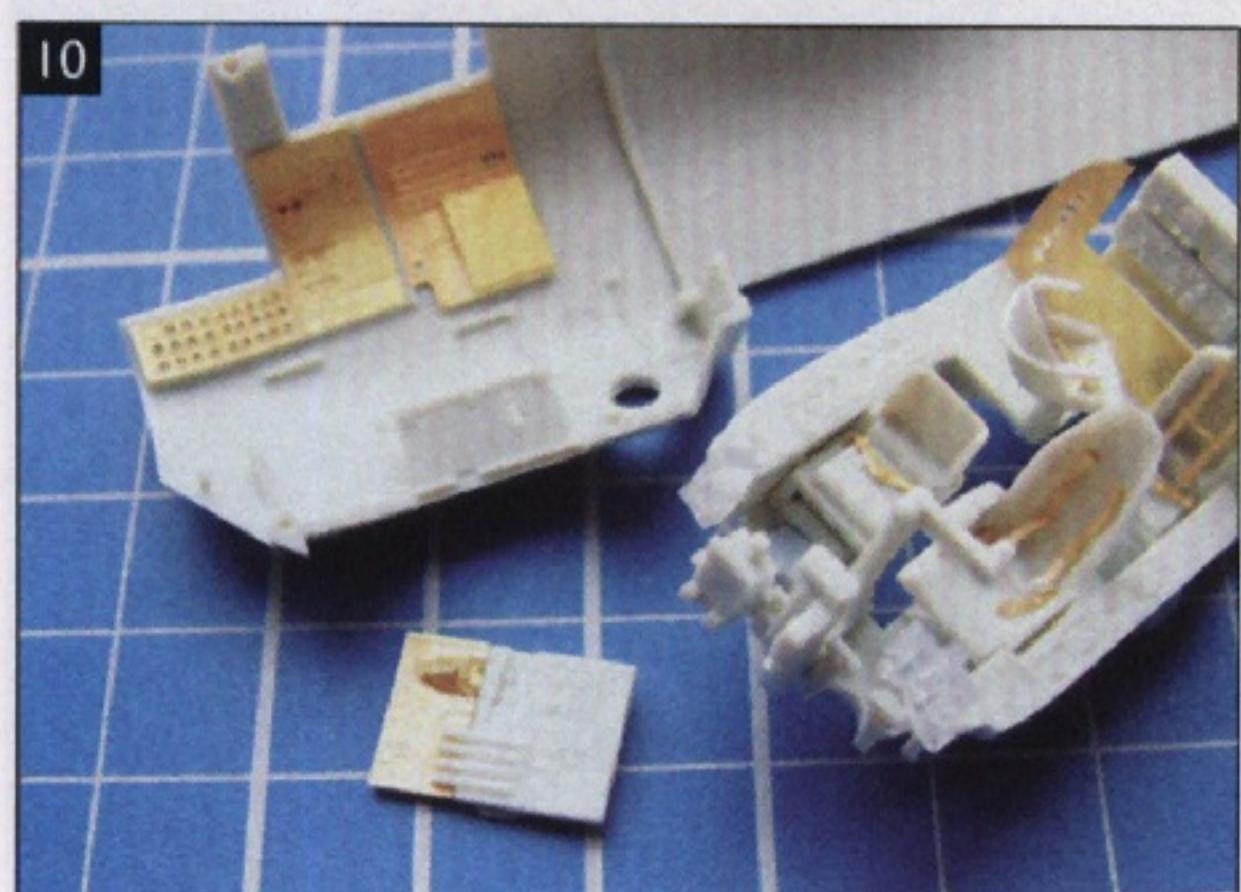
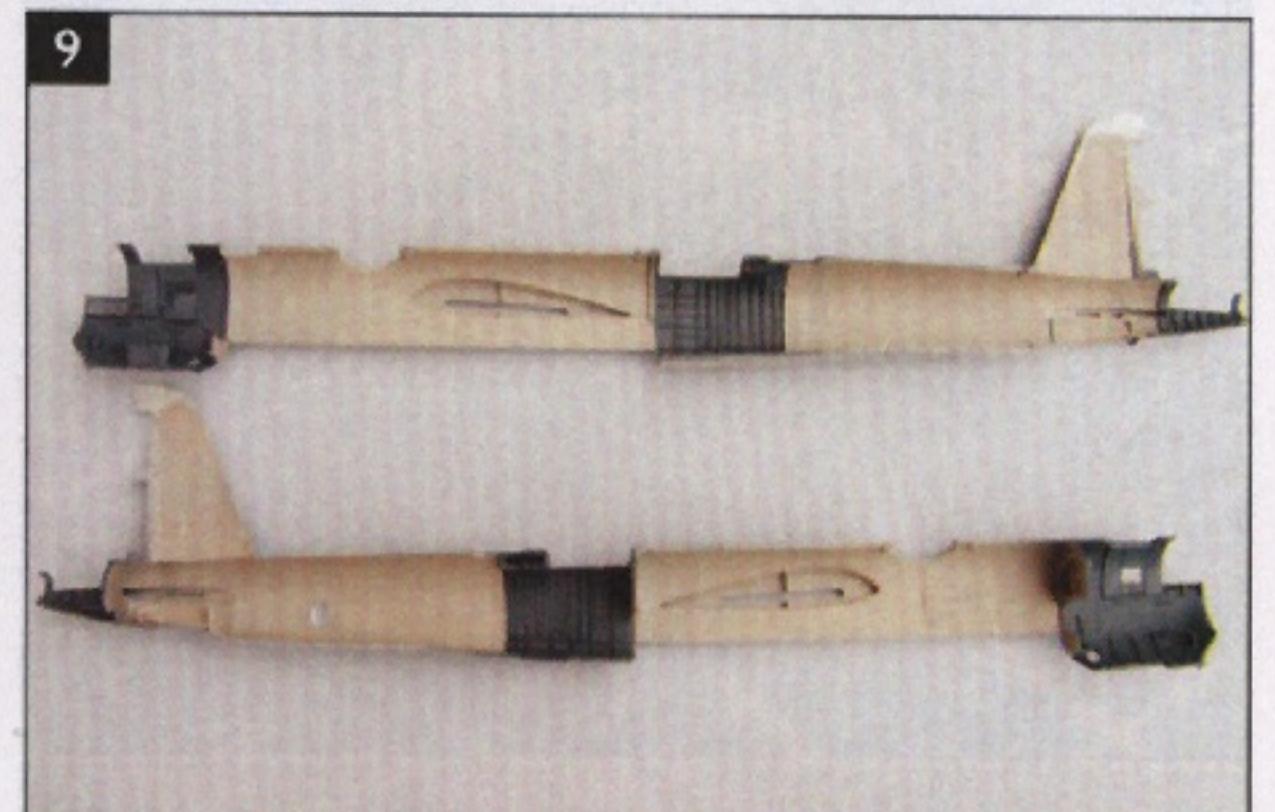
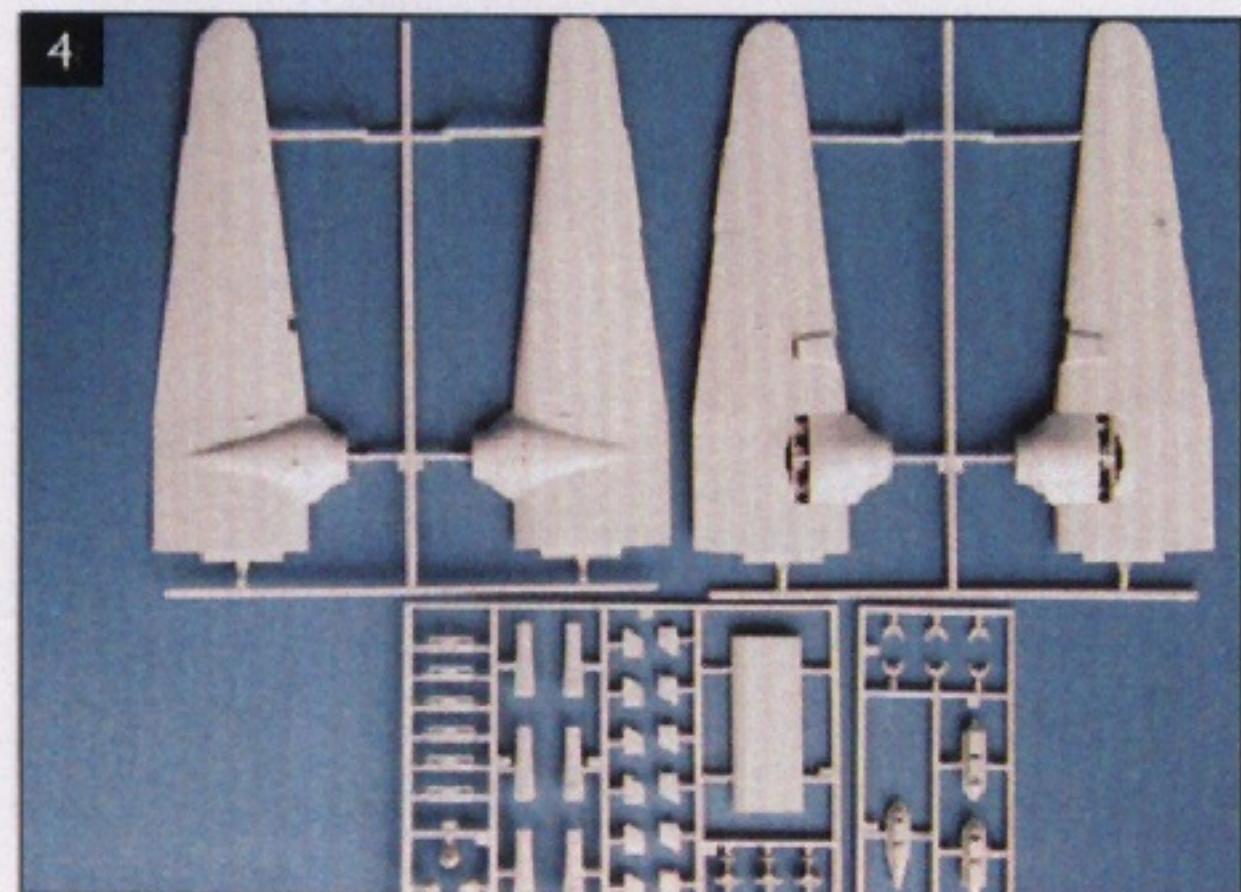
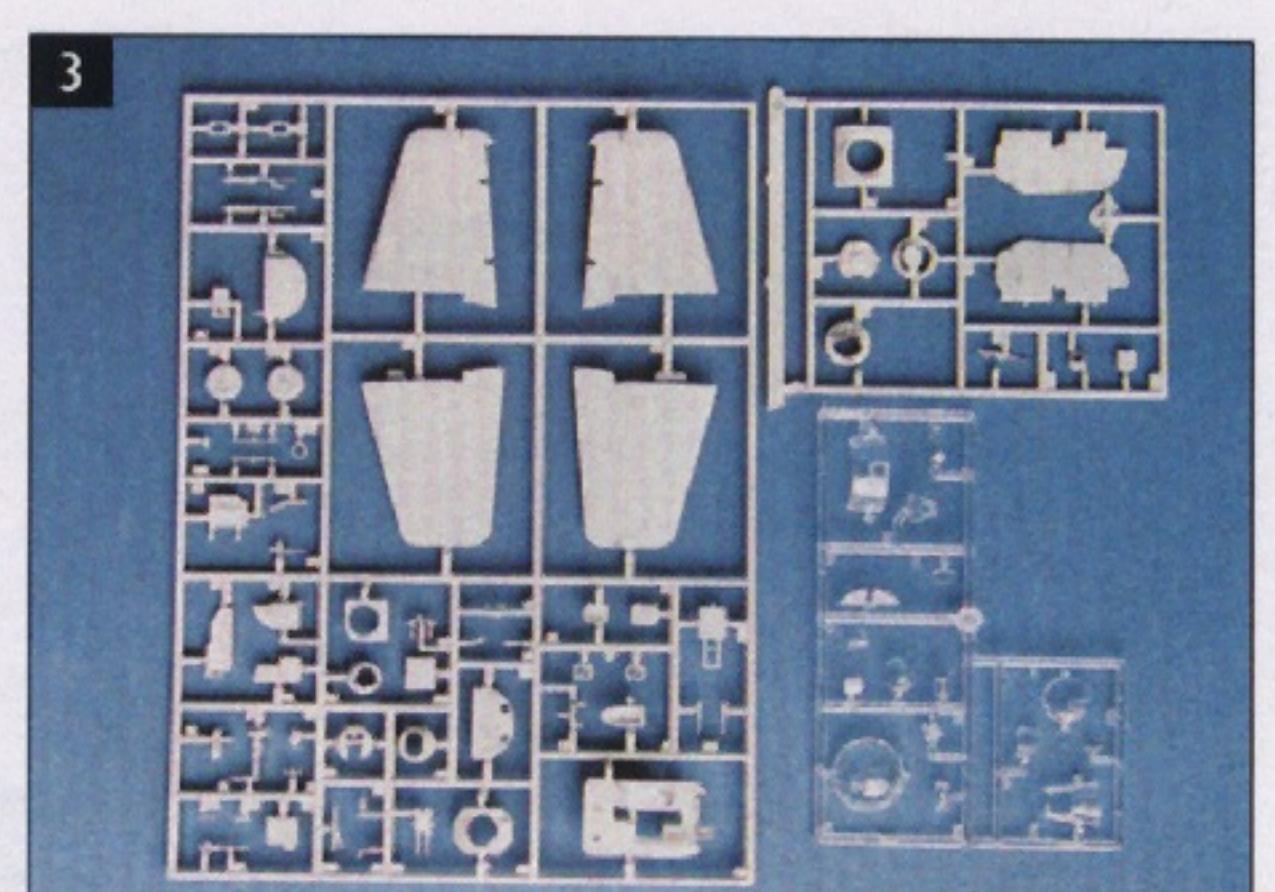
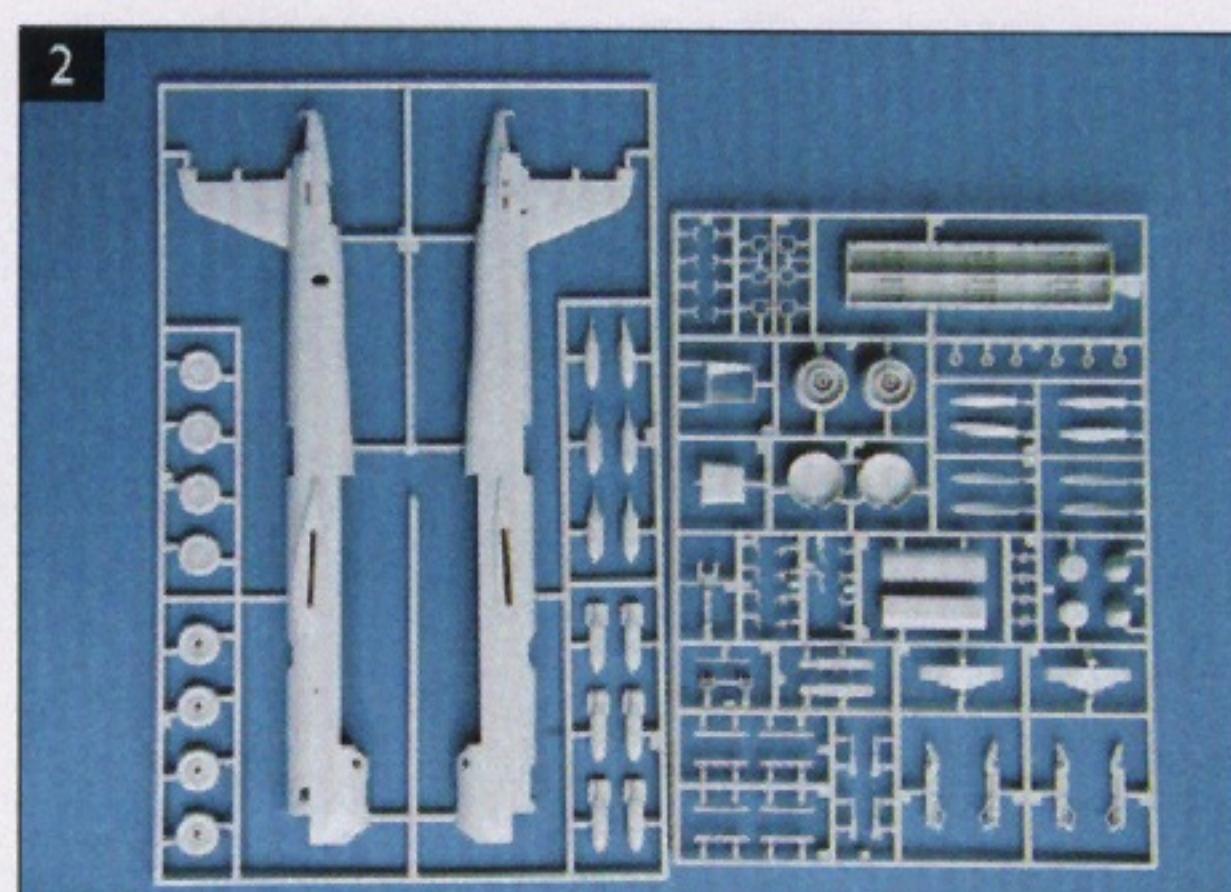
The Falcon parts, as usual, are top quality. The Falcon He 177 clear parts are also sold under the 'Crystal Clear' range from Squadron/Signal to give your budget a bit more flexibility. Sadly the Falcon set does not include the dorsal turret, whereas the Crystal Clear set does? Perhaps the dorsal

turret has been supplied to them from the tooling Falcon did for the Airfix kit? Regardless of origin it fits well and is accurate.

Two aftermarket items not shown are the brass etch set by Extra Tech and one of the two decal sheets offered (but out of print at the time of writing) by Eagle Strike. Some He 177A-3s operating against England can be seen with cable cutting framing around the front glazing, I was not to use these brass etch parts personally but I commend this Extra Tech set to you for the above items inclusion, as well as for the DF loop and rack antenna. The out-of-print Eagle Strike decal sheet (He 177 'Greif' Pt II) I had, however gets no such 'Brownie points'. The swastikas are too small for all but one of the options; the white outlines of the crosses are, like the Revell decals a little too 'thick,' and in all but one case (and that was due to lack of references) all the options have either errors with the

instructions or errors with the individual markings!

Photo 8 shows the reference material I was able to get hold of for this project. They were all very helpful in one way or another; only ignore the artwork in the WWII Militaria Vol.46 book, as well as the location of the DF loop and rack antenna in their pull-out scale plans. Incidentally if you want to model a KG 100 A-3 from the 'Operation Steinbock' period then two good photos of 'Edith' can be found in the Manfred Griehl and Joachim Dressel book 'Heinkel He 177, 277, 274'. Good pictures of 'Hilda' can be found in the above book plus in the Warpaint volume and a good picture of 'Susi' can be found in the Luftwaffe at War 'German Bombers Over England 1940 - 1944' book by Manfred Griehl, as well as one in the He 177, 277, 274 book, and one in the old Alfred Price book 'German Bombers of World War Two Volume Two' (fancy doing a diorama?).



History

The He 177 can be best summed up as 'the aircraft that could have done with the war not starting until 1942'! From fires to fuel shortages, this novel aircraft just didn't have any breathing space, except a few shining moments over Russia, and was an aircraft Nazi Germany could not afford to run, develop or maintain.

'Operation Steinbock', the renewed 'revenge' night attacks on London and other major centres kicked off at 19:30 hrs on the night of the 21st January 1944 and saw, amongst other aircraft types, forty-six He 177A-3s from 1 & 3./KG 100, and 1./KG 40 heading towards England for the first time. Operations continued, with various levels of serviceability and availability, until the end of May 1944, by which time the 60% loss rate of General Major Peltz' attack force rendered these 'prestige' attacks unaffordable.

Modelling the Revell He 177

I do have something of a soft spot for

conversion projects, and as on Revell's He 177A-5 this only meant altering the ailerons to represent an A-3, it seemed an easy task. My decision was also fed somewhat by being happier with the Eagle Strike decal option 'Edith' than I was with any other option on the sheet, and even with this option there were going to be problems!

Modelling the Revell He 177 as an A-5 also meant that I would have to make some 'exposed' exhausts, as all the photographs I had of A-5s showed them on daylight missions and unhampered by speed-sapping flame dampers! The majority of A-5 photographs also showed that one of the large lower windows on the starboard side of the front glazing was completely 'flat'. As Falcon have not represented this (thankfully) I again thought it best to model an A-3 (the paint scheme was easier too!).

Planning an article can be difficult, and as this was a far more 'involved' project than I was used to, I hope you don't mind if I tackle each area of

detail from start to finish as opposed to writing about the actual chronology of the project, which given the size would be very boring.

Cockpit

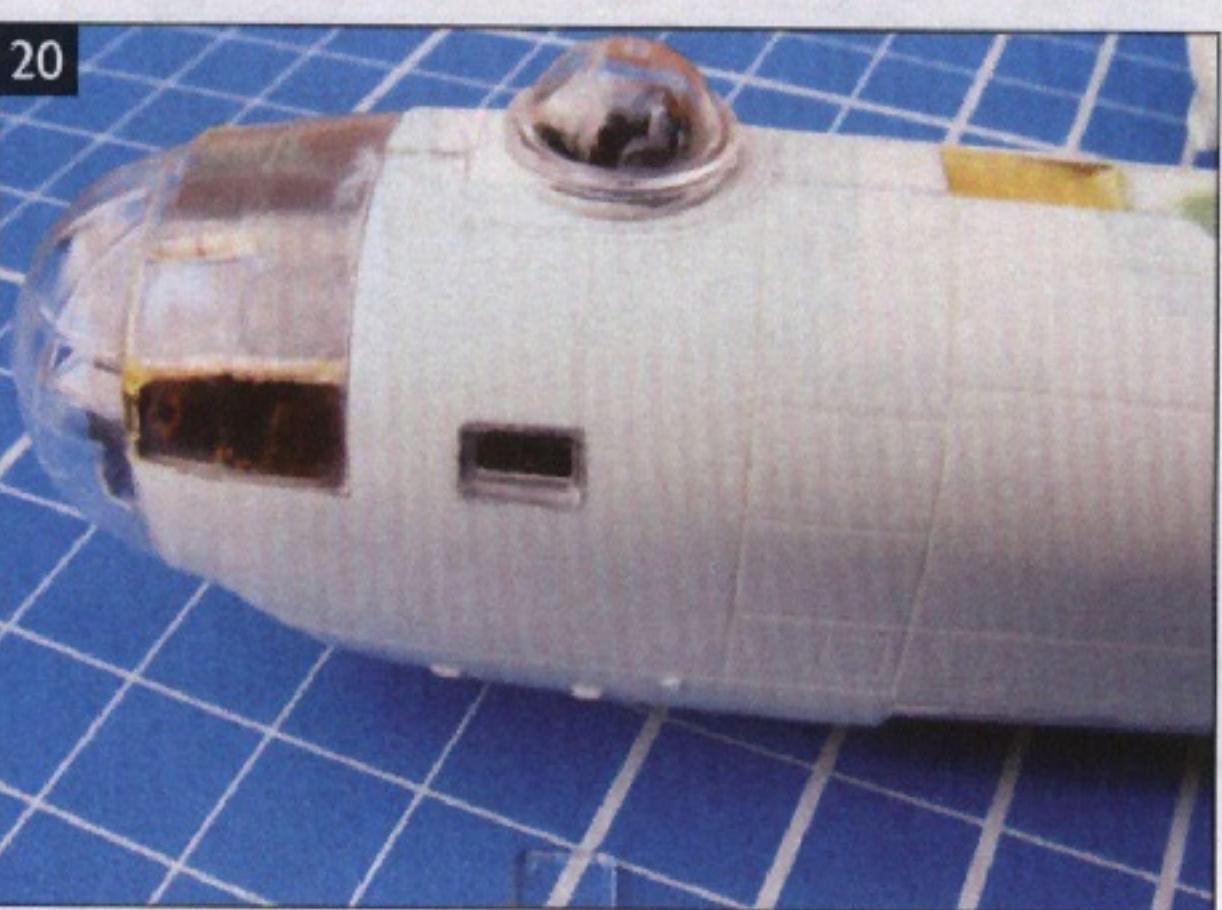
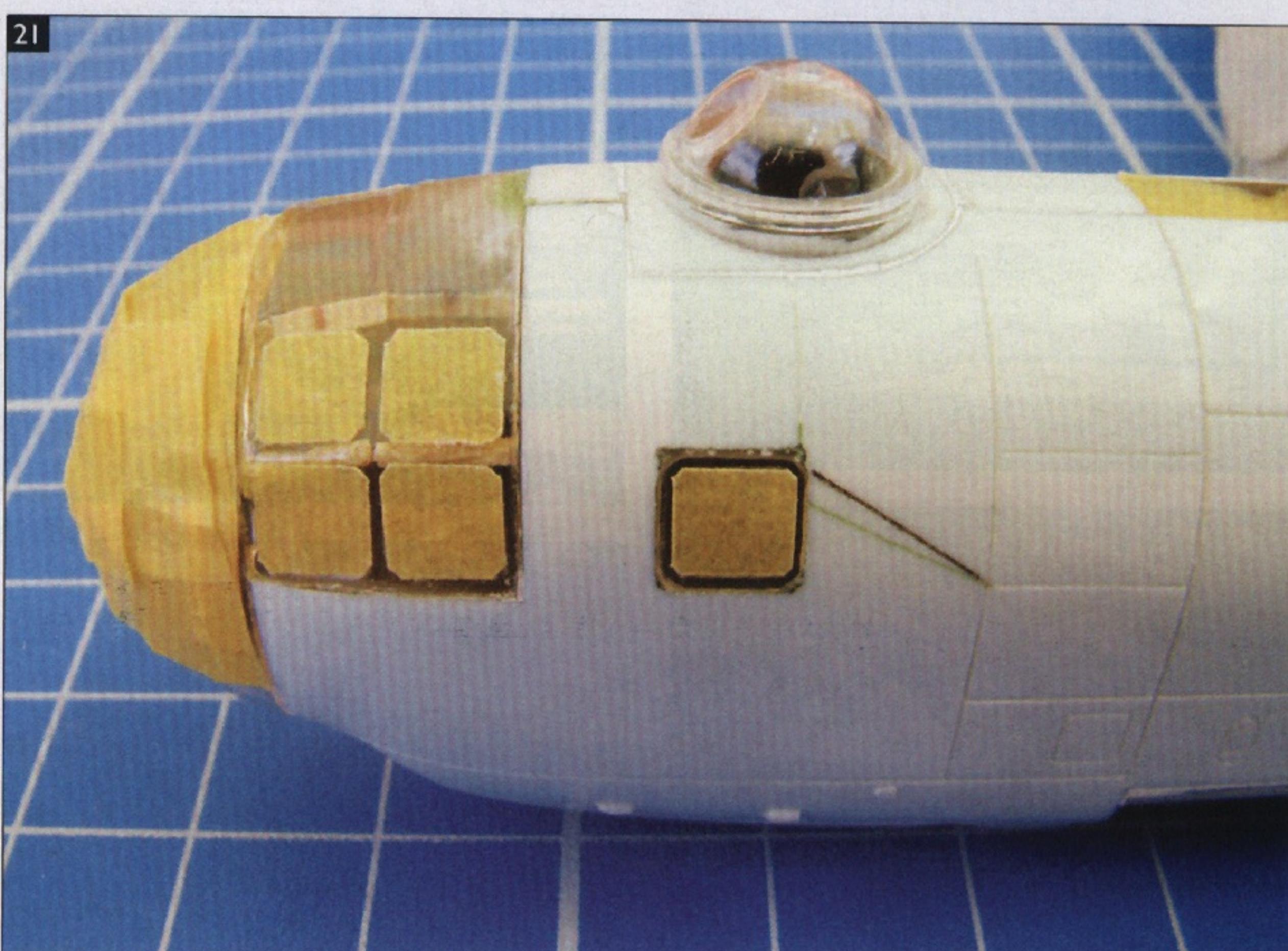
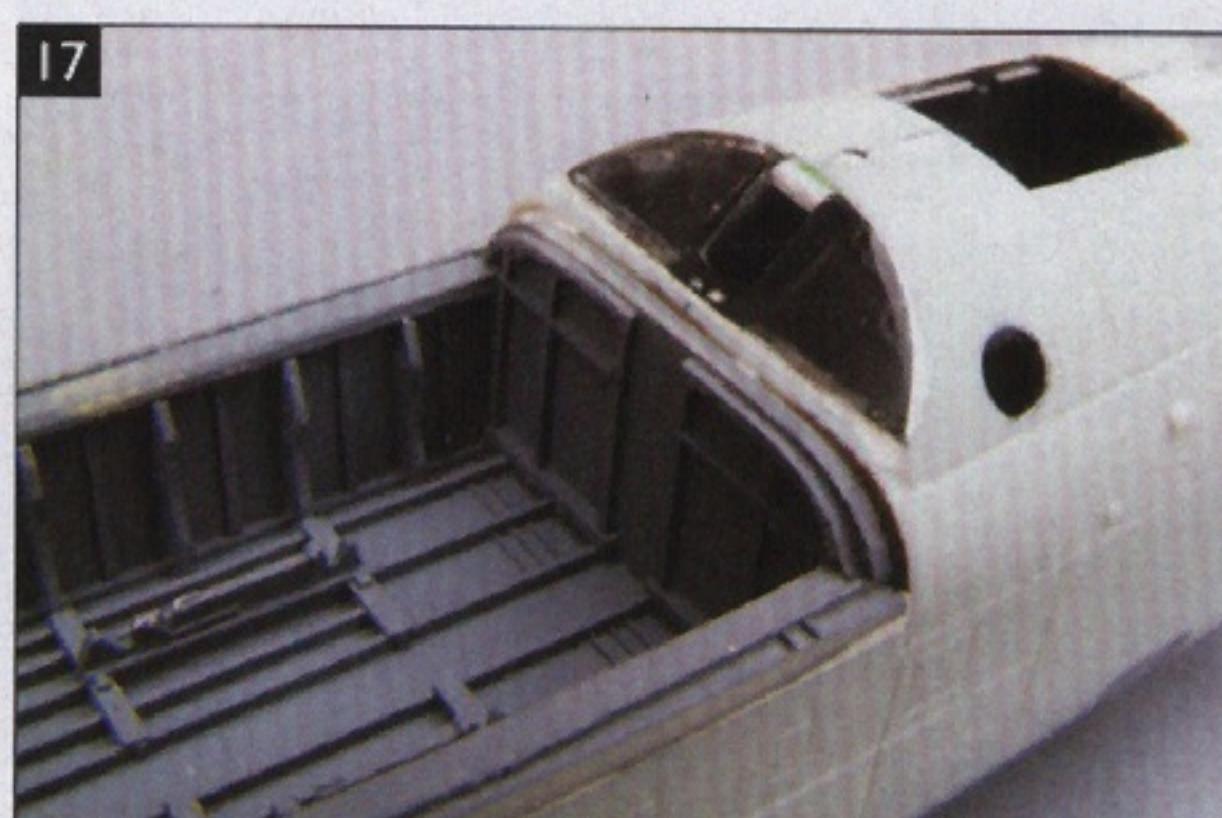
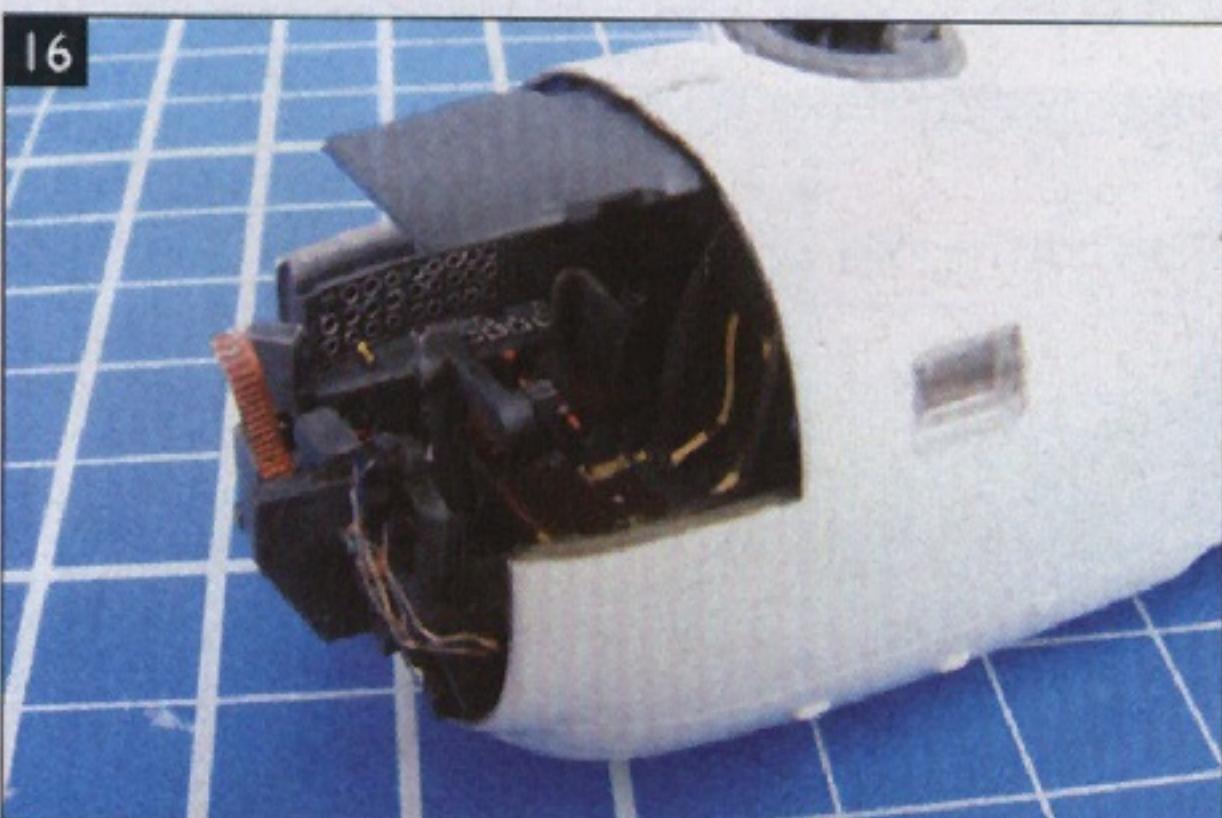
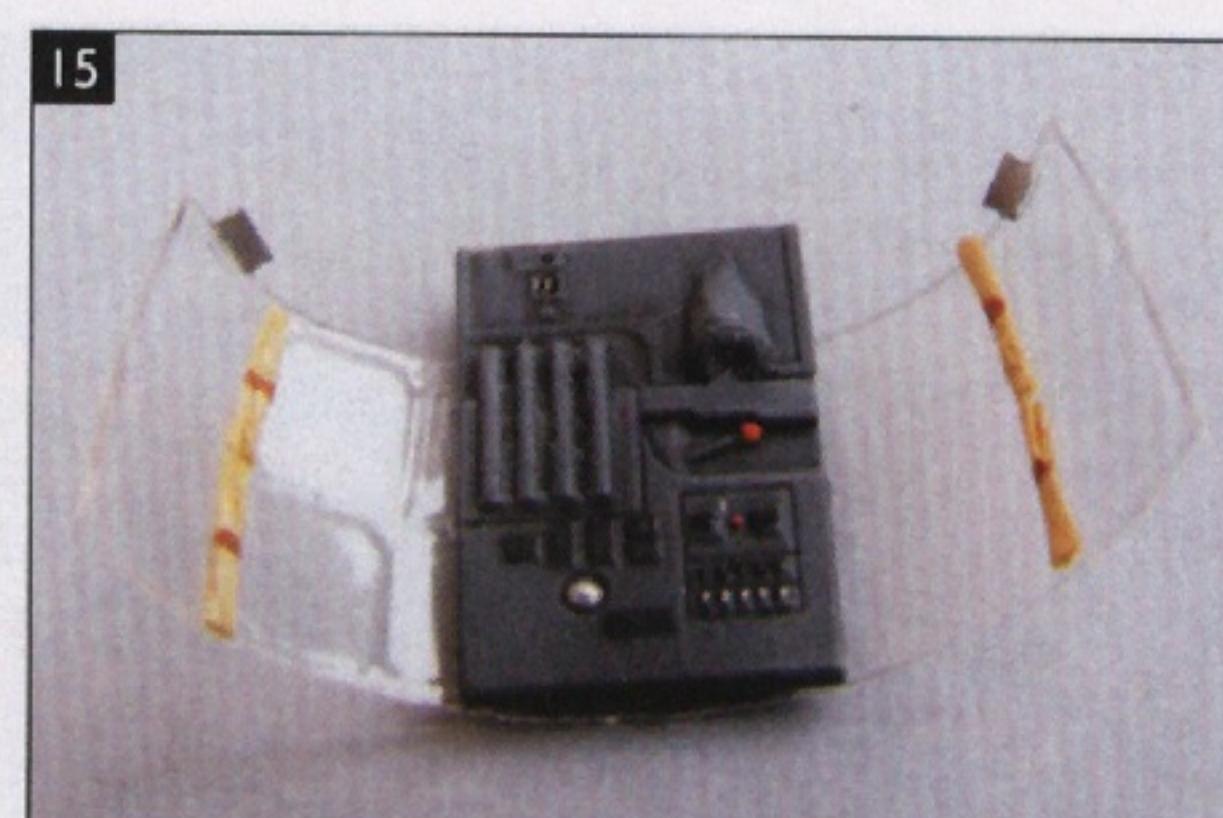
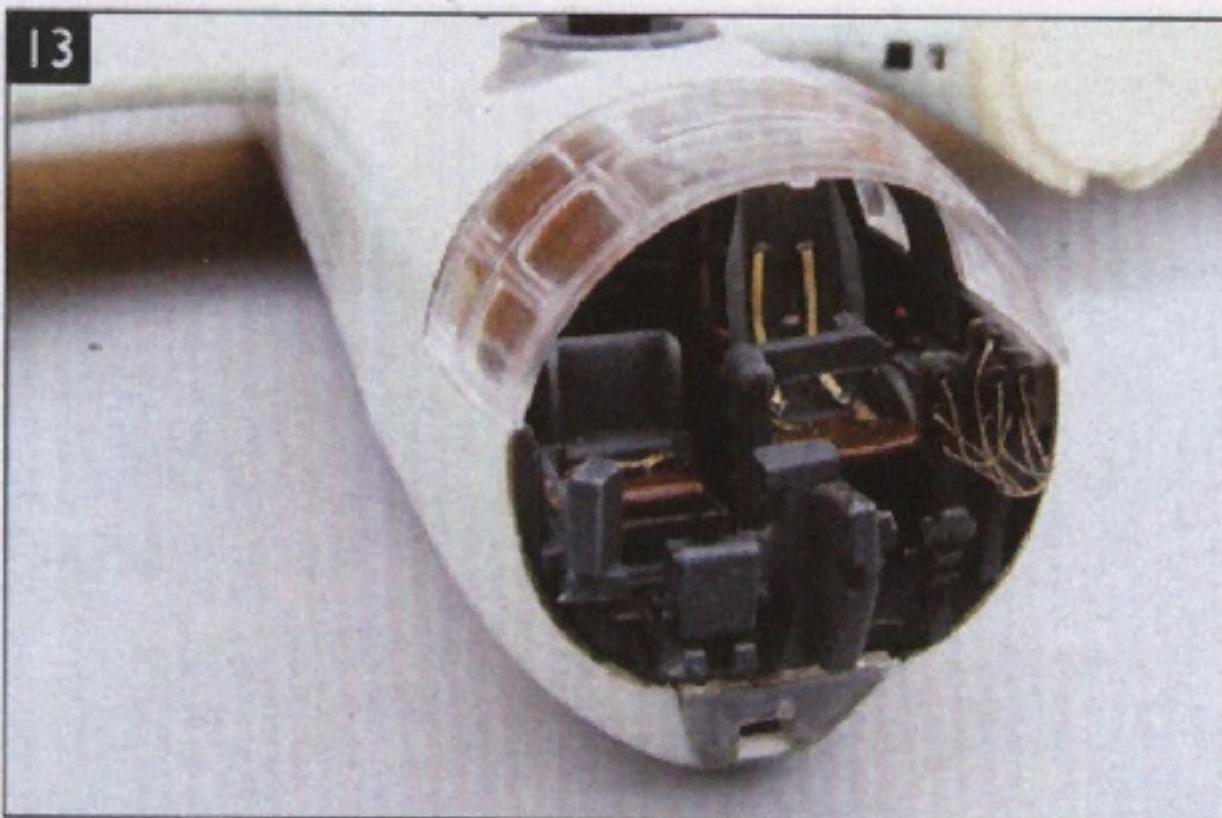
Photos 9 to 11 concern the cockpit tub build with brass etched additions to both this and the starboard wall. Extra Tech provide more brass items than you see here, but the kit parts when painted and drybrushed looked great on their own, a real shame you cannot see a thing on the finished model! One detail feature you will see however is the back of the pilot's main instrument panel and so some wiring was attached to the backs of the moulded instrument cases.

The paint layout in photo 12 is probably more fiction than fact and certainly will, like the cockpit detail, never be seen again! With the insides of the fuselage painted the two halves of the fuselage came together, to tightly sandwich the cockpit tub; too tightly in fact, resulting in a poor join line which

needed filler. Best to sand down the 'contact areas' of the tub before gluing.

Preparation of the wings and bomb bay had been going on behind the scenes as it were and so with the bulk of the model glued together, filled and sanded, it was time to try out the first of the Falcon clear parts, namely the cockpit roof. Revell depict this as perfectly curved to match the line of the front glazing (See Photo 13); this is wrong, and whilst the Falcon part seen in photo 14 causes a break from the curve of the front glazing which is perhaps a little too pronounced, it nevertheless shows correctly the flat-sided nature of this clear part.

Photo 15 shows an attempt to try and follow the Extra Tech's instructions concerning the fit and placement of the forward end of the roof console to the rear kit part (plus scratchbuilt wing mirrors and curtains). This cannot be right, as the roof console would interfere with the fit of the front glazing? I had no photographs looking up at the roof,



but if you want to fit these parts you will just have to scrape away a recess in the rear section of the roof and secure the part as in photo 16.

Before any of the fragile vac-formed clear parts were added I wanted to do some work on the two clear parts supplied in the kit for the front and rear ventral gun positions. The gun mounts in both cases are poorly represented, whilst the size of the rear-facing window, abreast the gun mount, was too small. The best solution to my mind was to 'square up' the gun mounts and cut back and re-polish the clear parts, relying solely on masking off later on to create the new windows. The preparation for the rear window can be seen in photo 17 (note: the very thick kit portholes have not been inserted from inside before joining up the fuselage halves).

Photos 18 shows a neat little trick, which doesn't half cut down the risk of putting too much pressure on these fragile vac-form parts - thanks Rolf. The front glazing (and the dorsal

turret) was pushed down onto a blob of dental putty before it cured, providing a very good base for cutting into the clear piece, in my case the side windows. The results of this work, and the gradient lines scratched in from the inside, can be seen in photo 19. This photo also shows the advantage of securing the front glazing first, i.e. the ability to hook behind it from the side and match up the 'barrel less' MG 81 machine gun with the ammo belt (from the spares box). You may just be able to make out that a second row of curtains has been attached to the roof console for the upper sets of side windows.

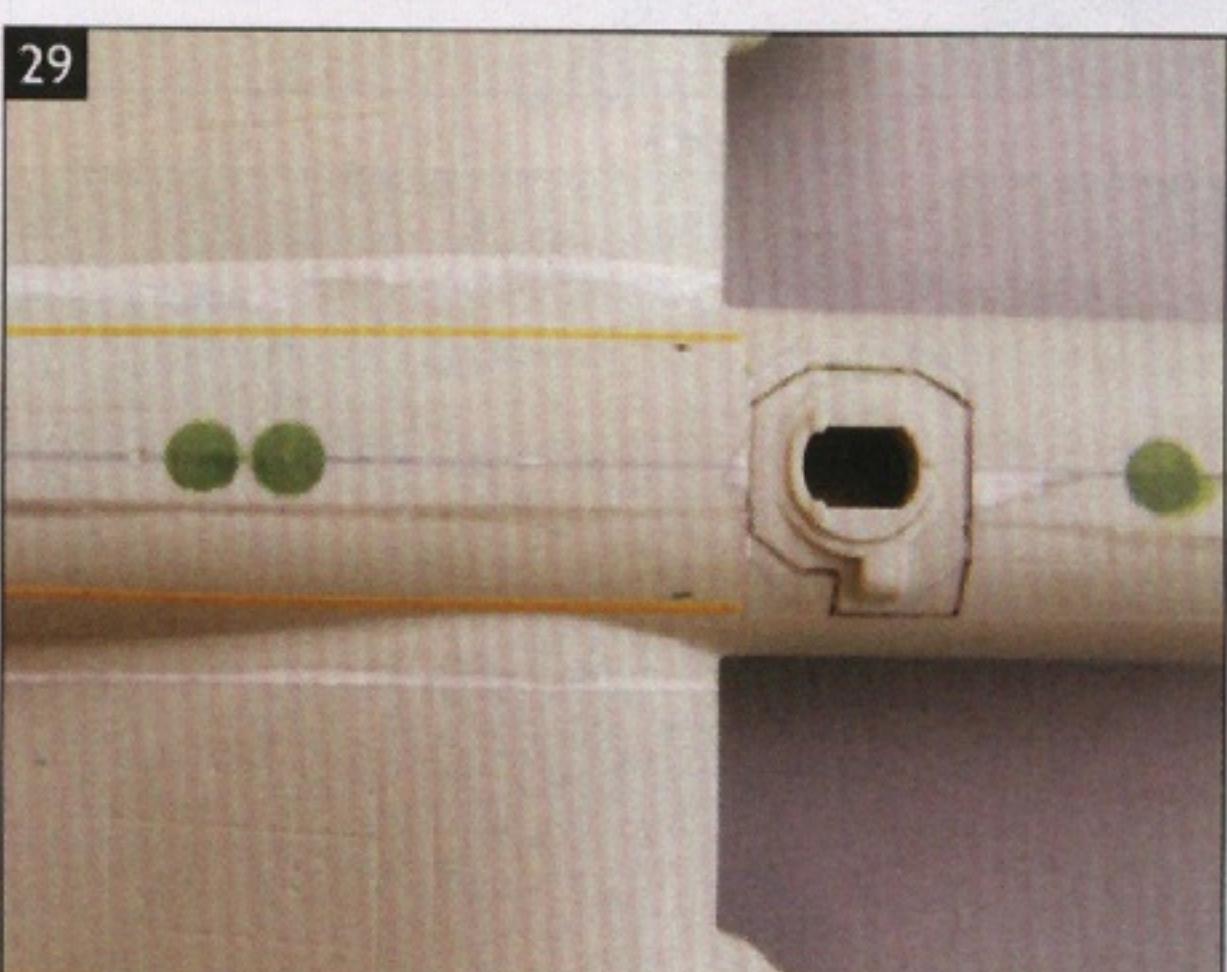
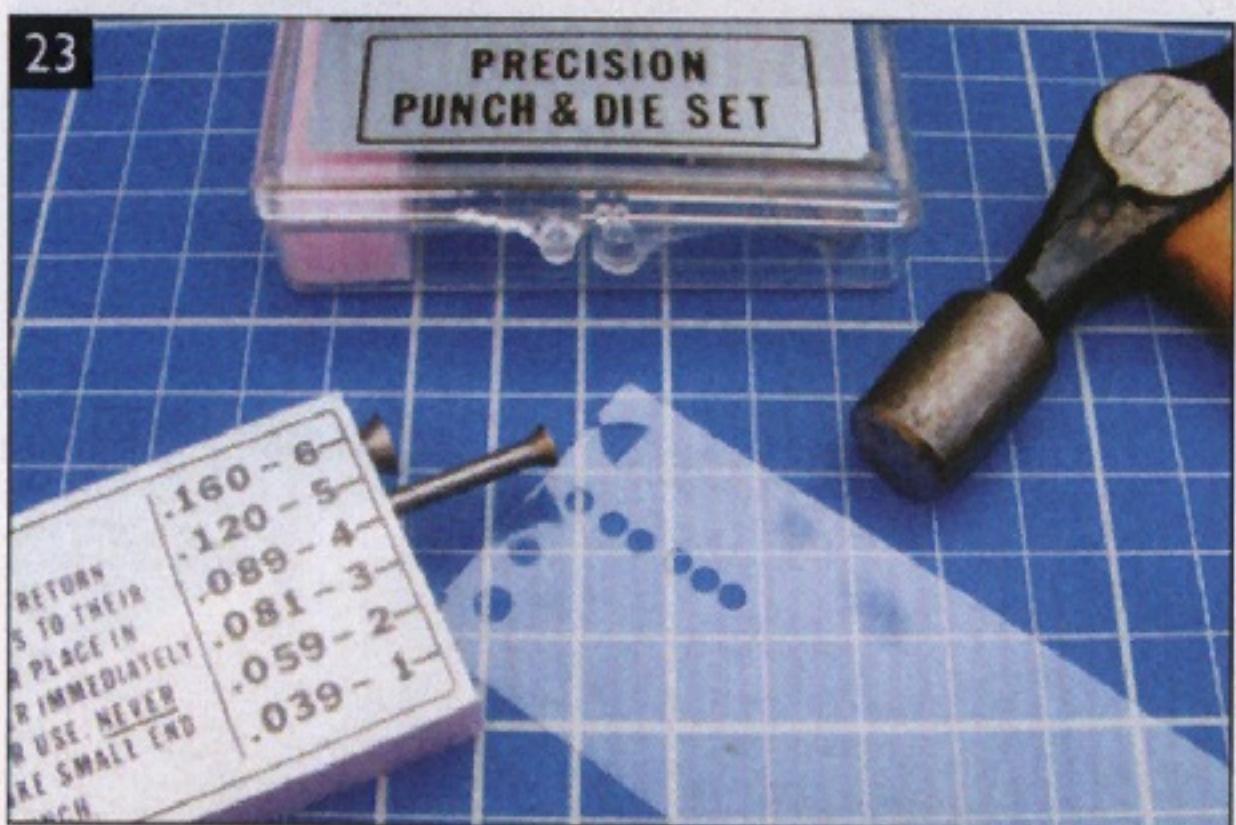
The next two photos (20 & 21) show the problem and remedy of the rear single cabin window. I was real mad that I had not spotted it earlier and was just getting ready to mask off for spraying! The rear window should be the same as the forward side windows but, as can be seen, this certainly was not the case and so it was removed, the aperture given more

height and a piece of square clear plastic added from the scrap box. The new window was not added flush as when it was set it would have to be sanded to conform to the curve of the fuselage. Note that the diagonal panel line aft of this window, and at a relative position on the other side, needs amending to be in line with the top of the window.

The next six photos (22 to 28) deal with detail after spraying. I prefer to use sprayed decal strip as often as I can for canopies. I can cut straighter than I can paint and I hate masking! Photo 22 shows this work in progress.

Building Revell's He 177 gave me the opportunity to use my Walden Punch and Die set for the first ever time! Unhappy with the quality of the kit's porthole clear parts I was chuffed to bits that one of the Walden punches was the perfect diameter. The Walden set results, plus the outcome of remodelling the rear ventral gun window can be seen in photos 23 & 24.

Just a few more things to mention before we are finished looking at the forward fuselage area... the kit's two MG 151 20 mm cannon are very nice but the barrels are too short and have flash eliminators that do not appear in any photographs. The special night sight also appears to be absent in all the photos I have seen of the nose MG 151. Photo 25 shows one solution, which is to simply replace the barrel with brass rod equipped with a simpler bomb-sight (in my case from a Reheat set). Photo 26 illustrates two concerns I was unable to clarify. I am unsure what position the forward gun controllers' cupola rests in relationship to the remote-controlled gun battery? The gun battery seems to always be stowed facing aft, but the flat-sided part of the cupola can be seen facing away from the line of sight of the gun? The kit detail did however prevent me from having the flat face pointing in the direction of the MG 131Z, there not being enough clearance between internal detail and the vac-formed



part. The second concern is in regard to the roof of the cabin immediately aft of the front glazing. Drawings and the tooling of both the Falcon and kit parts suggest a central ceiling window here, but not one photograph concentrated on that area. My difficulty is in understanding why there would be a window that simply allowed light to shine directly onto the reverse side of the ceiling console? As can be seen I have simply over-sprayed this area - if one day I know better I guess the Aztec airbrush cleaner, cotton buds and cocktail sticks will come out to play!

The final two photos (27 & 28) show the decals used in this area, as well as some panel line detailing and the tubular fairing to port of the forward MG 151. Eagle Strike does not provide the 'E' decal, but it would be very much in keeping with 'Hilda' and 'Susi' if it were applied. I used a 6in. letter from Modeldecal sheet 48A 'British Post-War White Letters etc'. As for the 'Edith' decal, it is too large but

short of painting it on by hand I saw no option but to use it. As for the paneling, which really should come under our next heading, photographs show how these side panels aft of the cabin were sealed with white tape, others look very grey at the seams. This latter look was reproduced using an artists' grey pastel pencil. I normally seal this work in with a coat of matt varnish but it always seems to disappear so it was left unprotected this time. Absolutely finally, note the tubular fairing to the port of the MG 151 window. The kit part looks nothing like this when first located, all I can suggest is that you fill the join lines to get a smoother tapered effect, carefully file the face flat and then drill a hole into the face. What this fairing is/does is a mystery to me? You really do get a good impression of the finished cockpit in these photos and you may be wondering where the external rear view mirror went? Well photographs don't show 'Edith', 'Hilda', or 'Susi' with this little help fitted!

Mid Fuselage

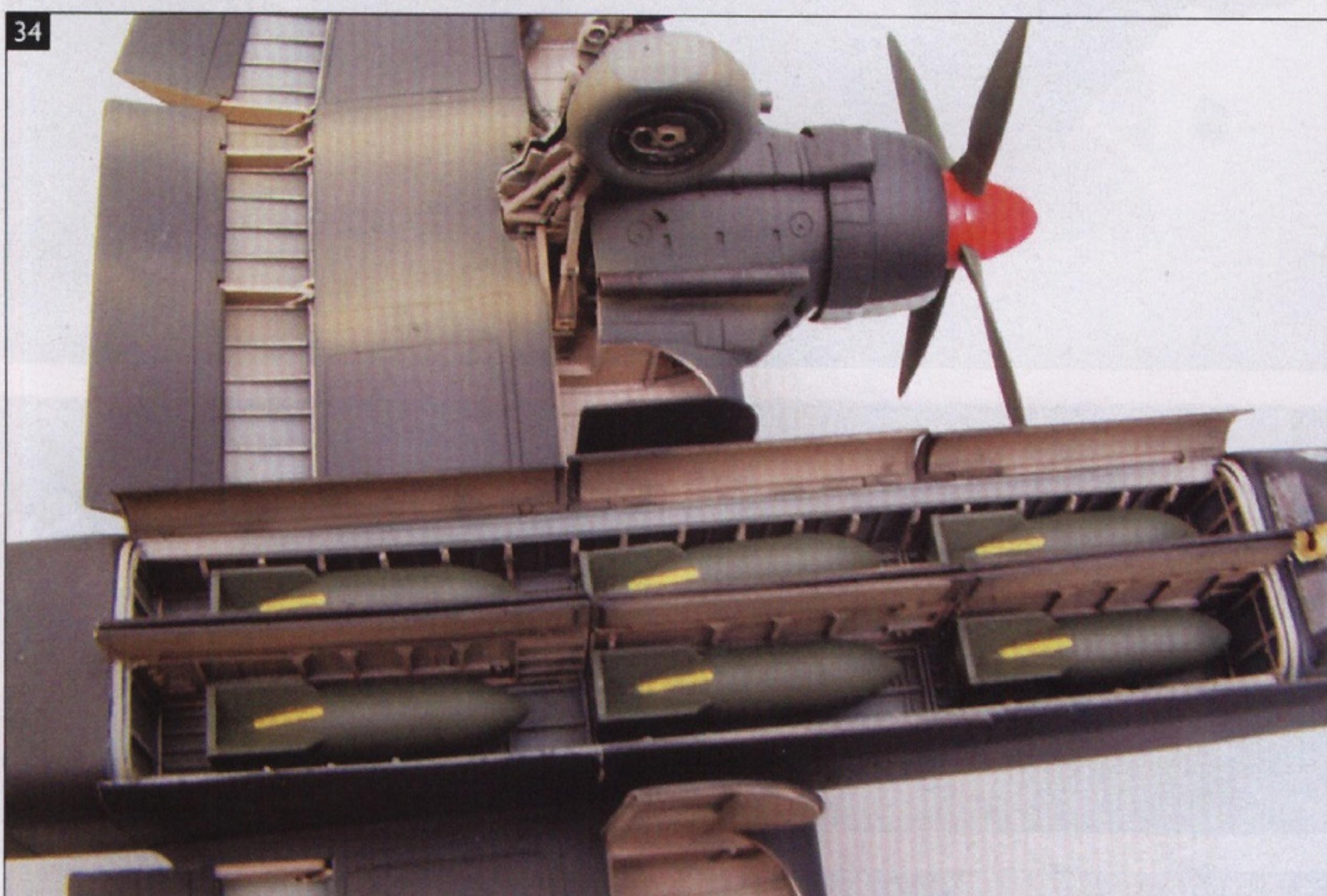
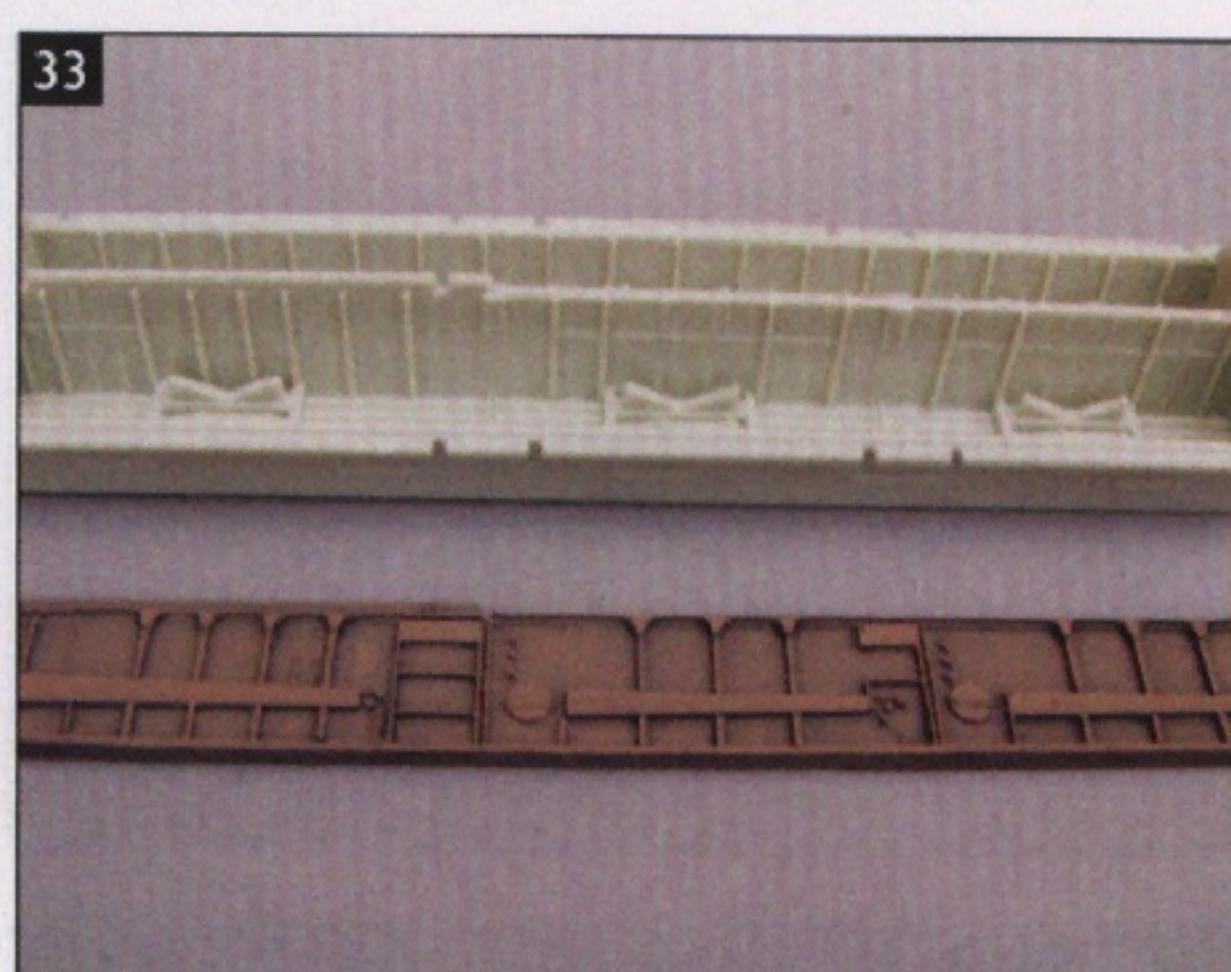
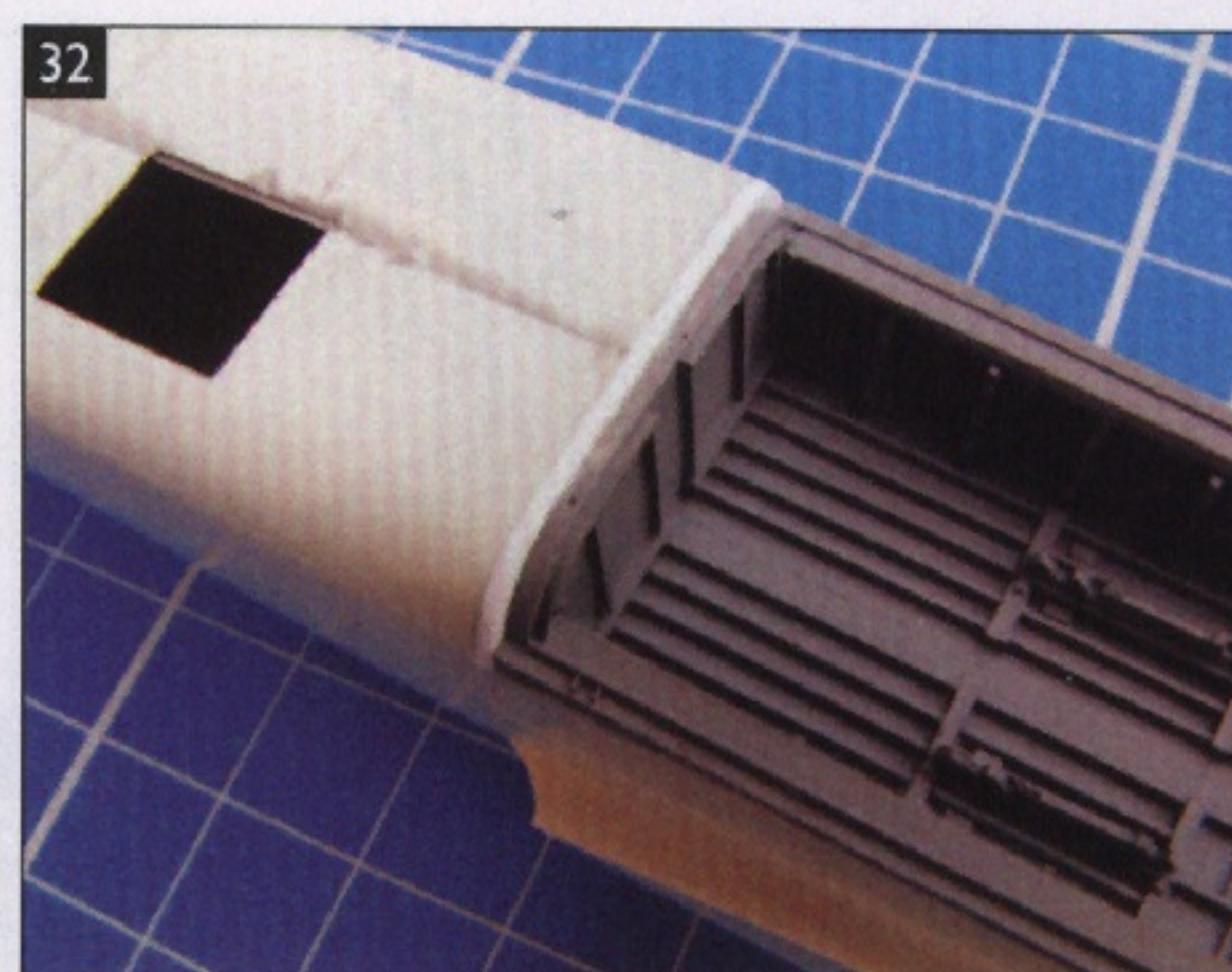
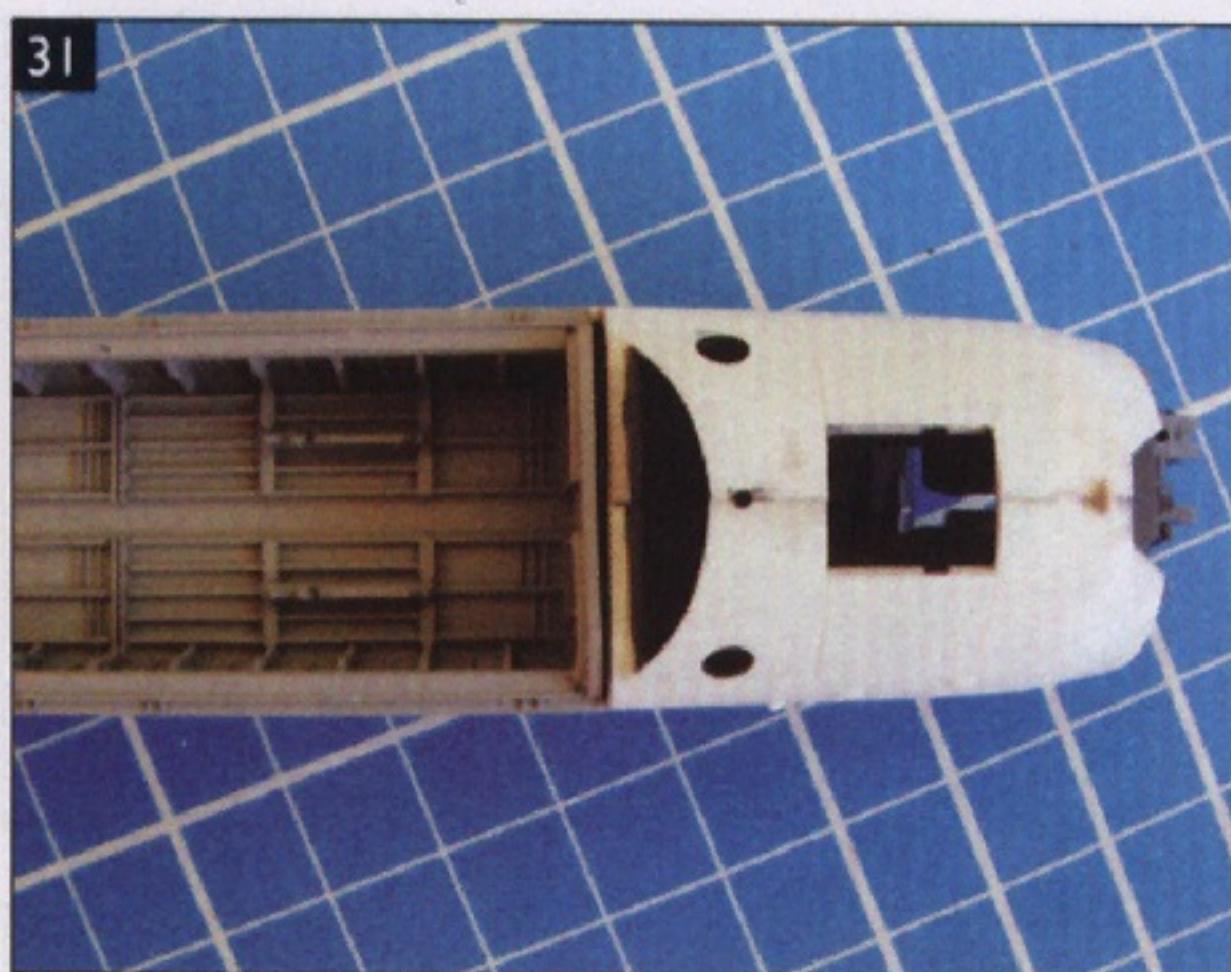
Revell depict the spine of the He 177 as a quite proud flat panel, which extends onto the fairing surrounding the MG 131Z remote control turret. Along the length of this flat panel are found three circular recesses for fuel points. Photographs however show that far from being proud, this flat spine panel is, to quote that famous line, 'only wafer thin'. Neither are the fuel filler caps recessed, and nor does the flat panel, proud or otherwise, extend onto the turret paneling! The panel layout for the remote control turret is also wrong. Photo 29 shows these corrections as well as the addition of some strengthening strips (Tamiya masking tape) and two small foot recesses to climb onto the spine. In photo 30 the finished results of this work can, I hope, be appreciated.

The next four photos deal with the bomb bay. The detail of the CMK bomb bay is a fantastic work of art and deserves a place in the Leeds Armoury museum! It is however a

little short! One can either fill the resulting gap at the front or at the rear. I wanted to fill at the rear for ease of sanding but the resin part will not butt up against the forward wall, being impeded by Revell kit part 35 (rear cabin wall). This had to have a few mm taken off its bottom, which was a real pain with everything already glued together. Once this was remedied it was a simple matter of sandwiching a piece of plastic sheet of approximate shape and size into the recess to the rear and when dry sanding to shape (See Photos 31 & 32). Photo 33 illustrates the point made about the detail of the CMK parts, which are seen to full advantage in the finished result shown in photo 34. Be warned that the bomb bay doors are very fragile and extreme care must be taken when removing them from the resin moulding blocks.

Aft Fuselage

This area concerns the manned dorsal turret (known as the B-2 Stand), the



dinghy compartment, fuselage markings and the FuG antenna equipment.

I had a bit of a fiasco with the dinghy compartment: first of all I misinterpreted the CMK instructions and so removed the whole starboard side of the area 'correctly' identified by Revell as the dinghy compartment, I then proceeded to do further damage by installing the CMK dinghy where they tell you to (See Photo 35), only to realise a little later that this is completely wrong! A new compartment was therefore made from plastic sheet and filled with Plastercene. This isn't the best material to use I know, but with a few coats of Halfords Primer who's going to know? And besides it was easy to sculpt and I don't intend sticking my fingers anywhere near the compartment again anyway (See Photos 36 & 37)!

As for the B-2 Stand, the fit of the Revell part 48 (turret surround) was extremely tight. It also seemed to

have gained extra height at the rear leaving a horrible drop down to the fuselage spine? Sanding down part 48 and using filler more or less solved the discrepancy, and besides I wanted to remove the two 'arc of fire limitation bars' anyway, replacing them with fuse wire.

This is also a good time to fill the join line between part 48 and the turret ring for a more realistic look.

In photo 38 you can see the main difference between kit part 52 on the left and the Falcon replacement part on the right. The gun position on the

Falcon part is more central, as can be seen in photographs. This means that kit parts 51 (gun mount) and 49 (turret ring) will have to be altered somewhat to bring the MG 131 over to its left.

The other issue concerns trying to more faithfully represent the clear parts sit above the turret ring. A 'lip' can clearly be seen on the real opening. This 'lip' halts when it gets to the arc of fire limitation bar, before carrying on again on the other side. If that sounded confusing - sorry, just look at photos 39 to 41.

Also whilst looking at photo 41 notice how small the '6N' unit code should be, again taken from the aforementioned Modeldecal sheet. Eagle Strike give you unit codes the size of the 'E' on the front glazing! Moving on to photo 42, notice how 'Edith' has blacked-out, very thin style fuselage crosses (as does 6N+HN). Rub-on black strips were used to represent this feature. Incidentally 'Hilda', 'Susi' and 'Marga' have very

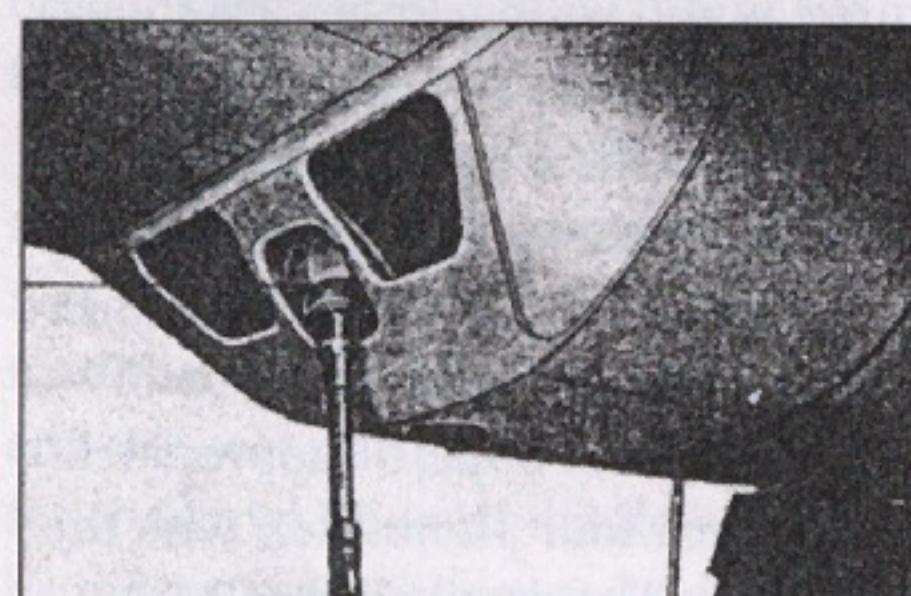


Diagram 4

The ventral, rearward-firing MG 131A-2 installation

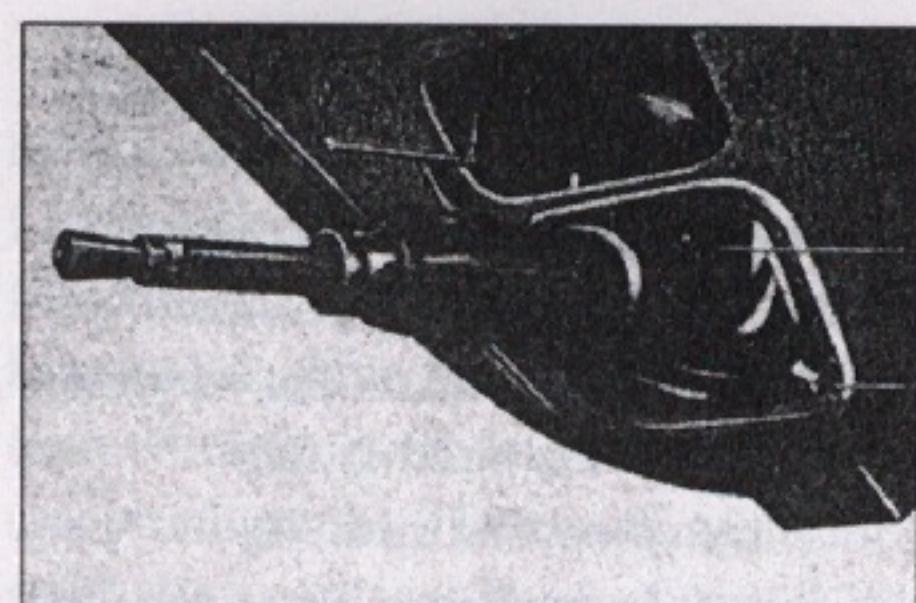


Diagram 3

Forward ventral MG/FF installation

thin light grey crosses. Also note in photo 42 the position of the 'EK' codes, their borders are a little too wide but see how the fuselage window interferes with the lower arm of the 'K'. Also see that the codes actually transgress the black camouflage demarcation border slightly. As the decals are just white outlines you will need to fill with black the inside of the codes above the demarcation line.

Finally photos 42 & 43 show the replacement antenna parts. In photo 42 the wedge-shaped kit part representing the trailing antenna has been replaced by perfectly round rod,

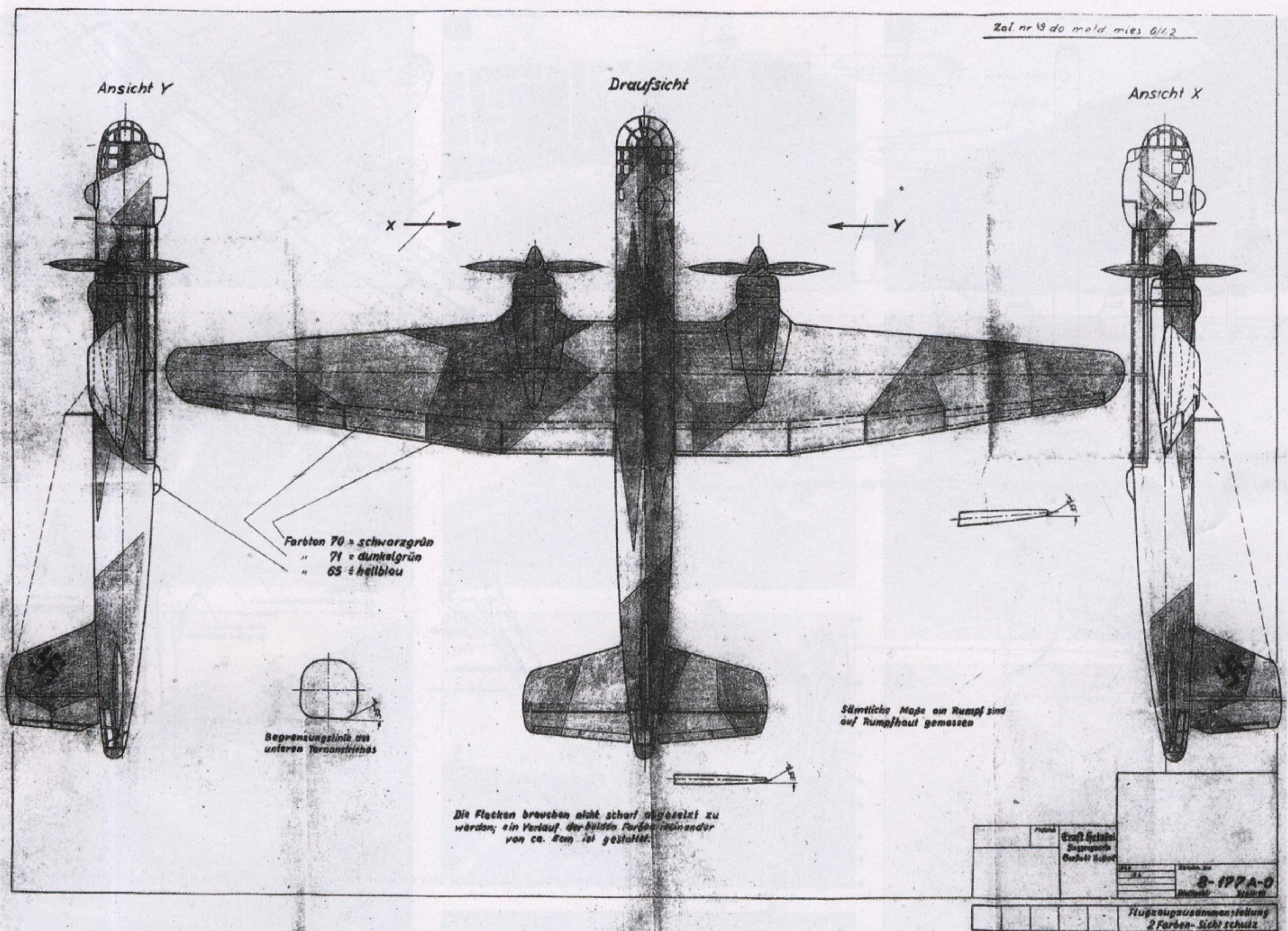


Diagram 1

This is the official painting guide for the He 177A-3, showing the splinter camouflage scheme of RLM 70 and 71 over 65

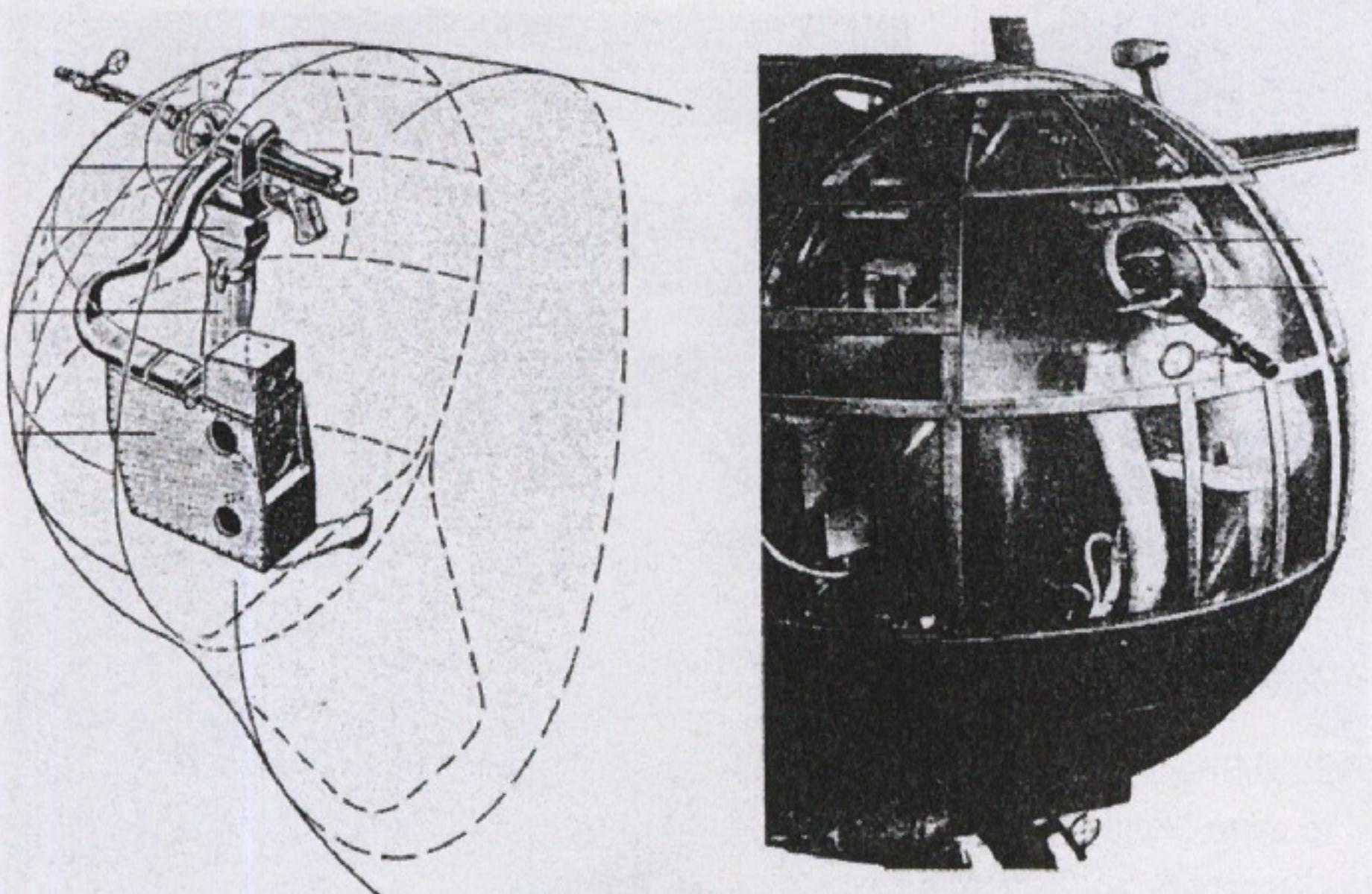


Diagram 5

The forward ventral MG 151/20A of the He 177A-3

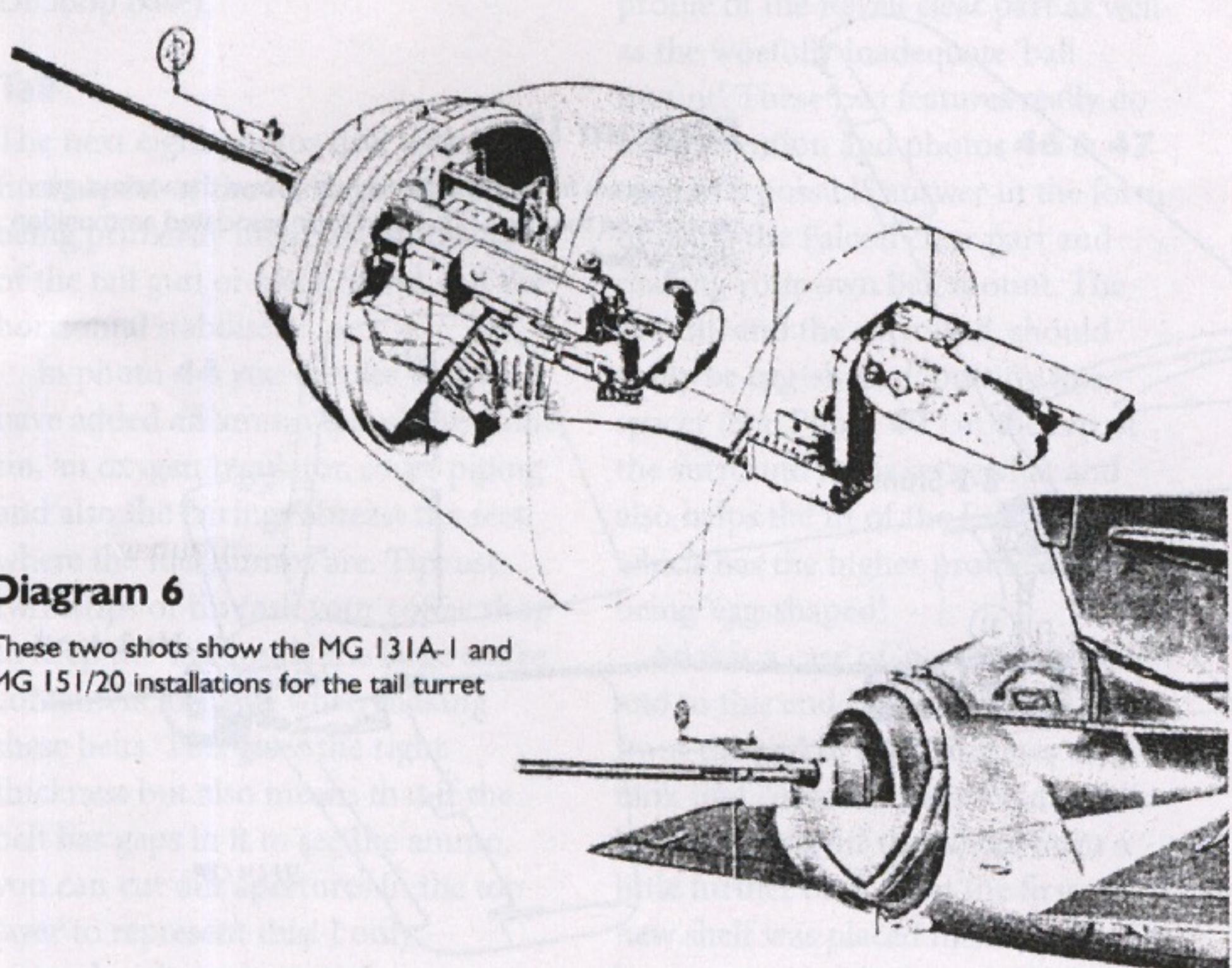


Diagram 6

These two shots show the MG 131A-1 and MG 151/20 installations for the tail turret

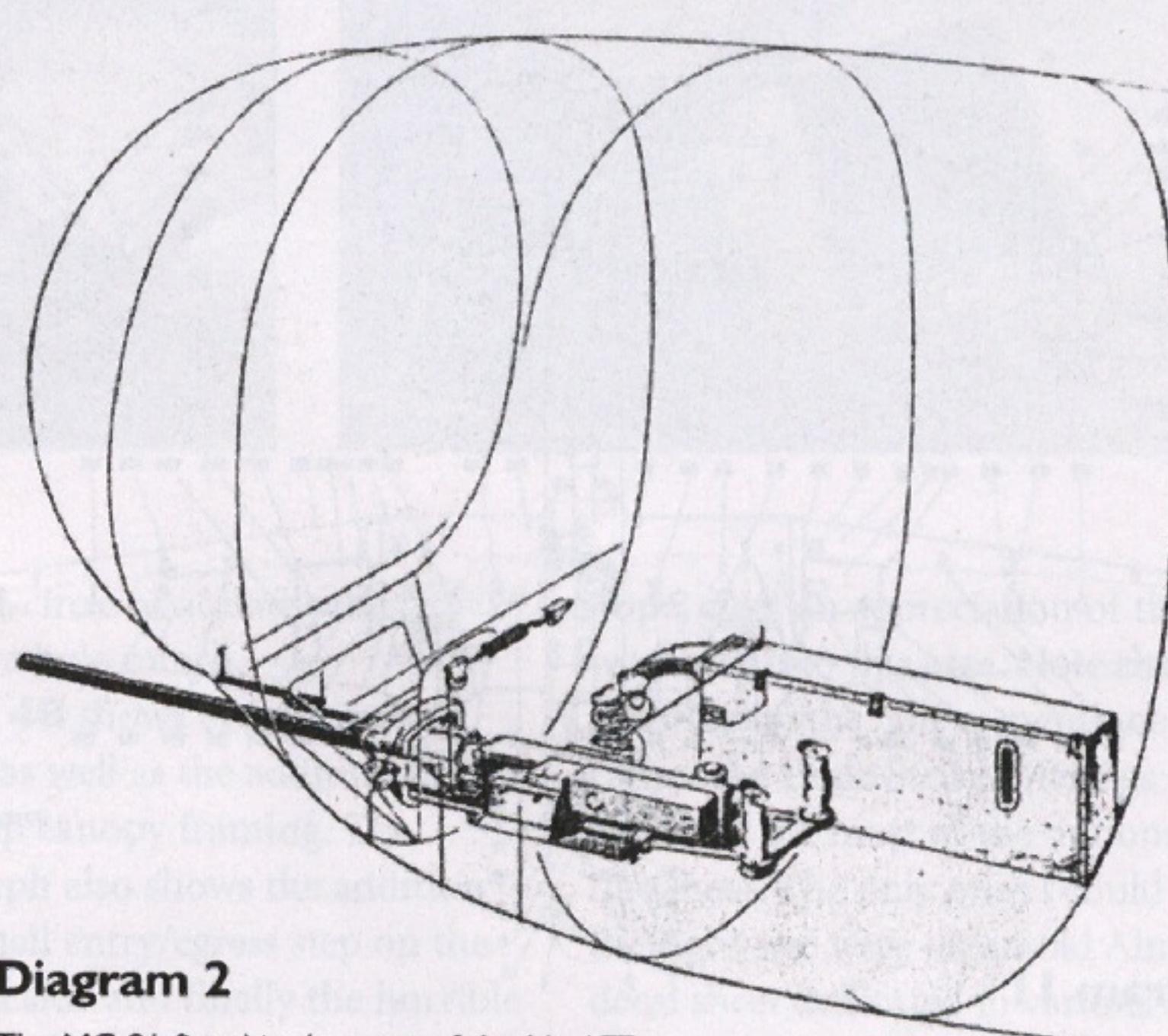
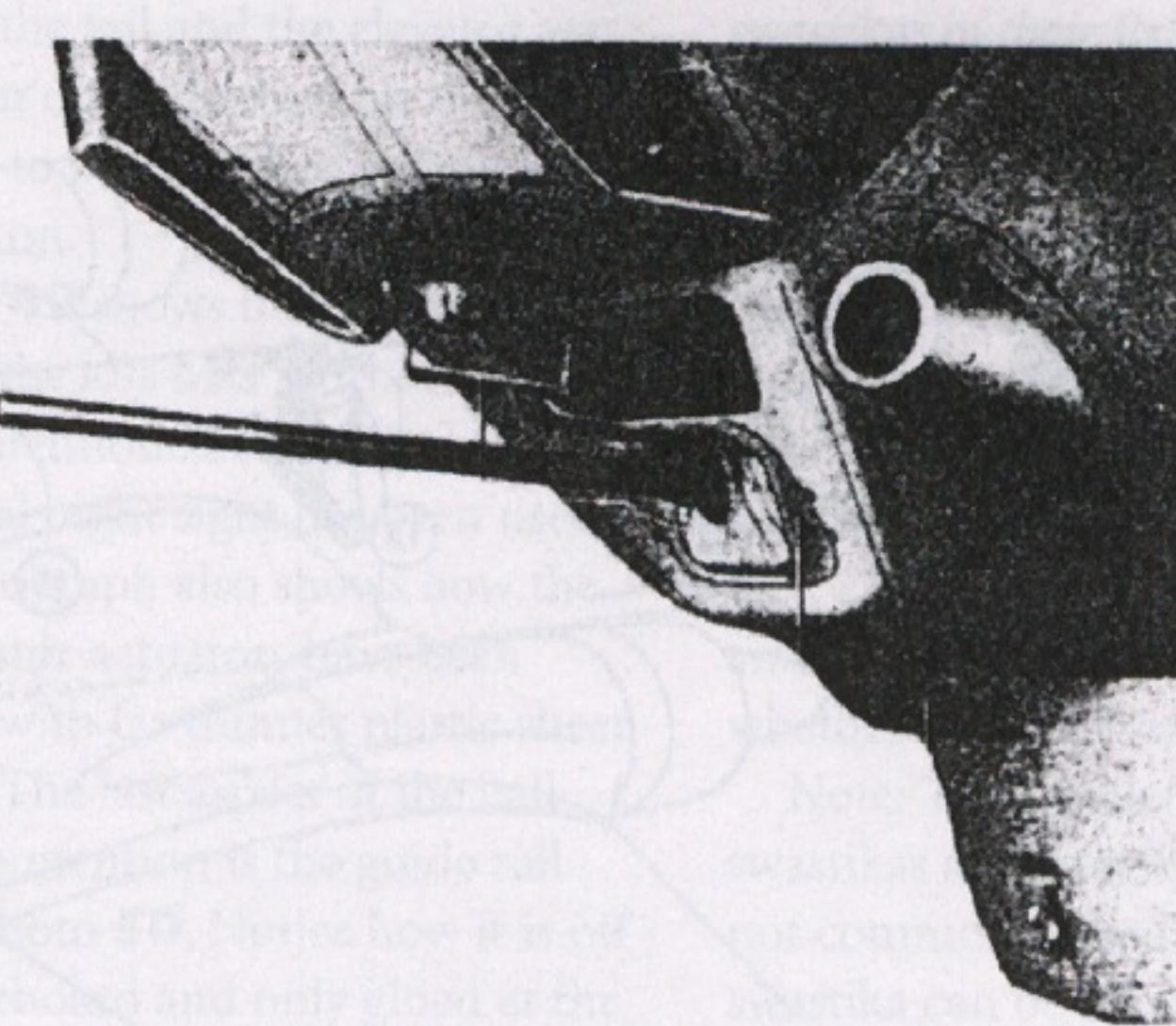


Diagram 2

The MG 81 fitted in the nose of the He 177



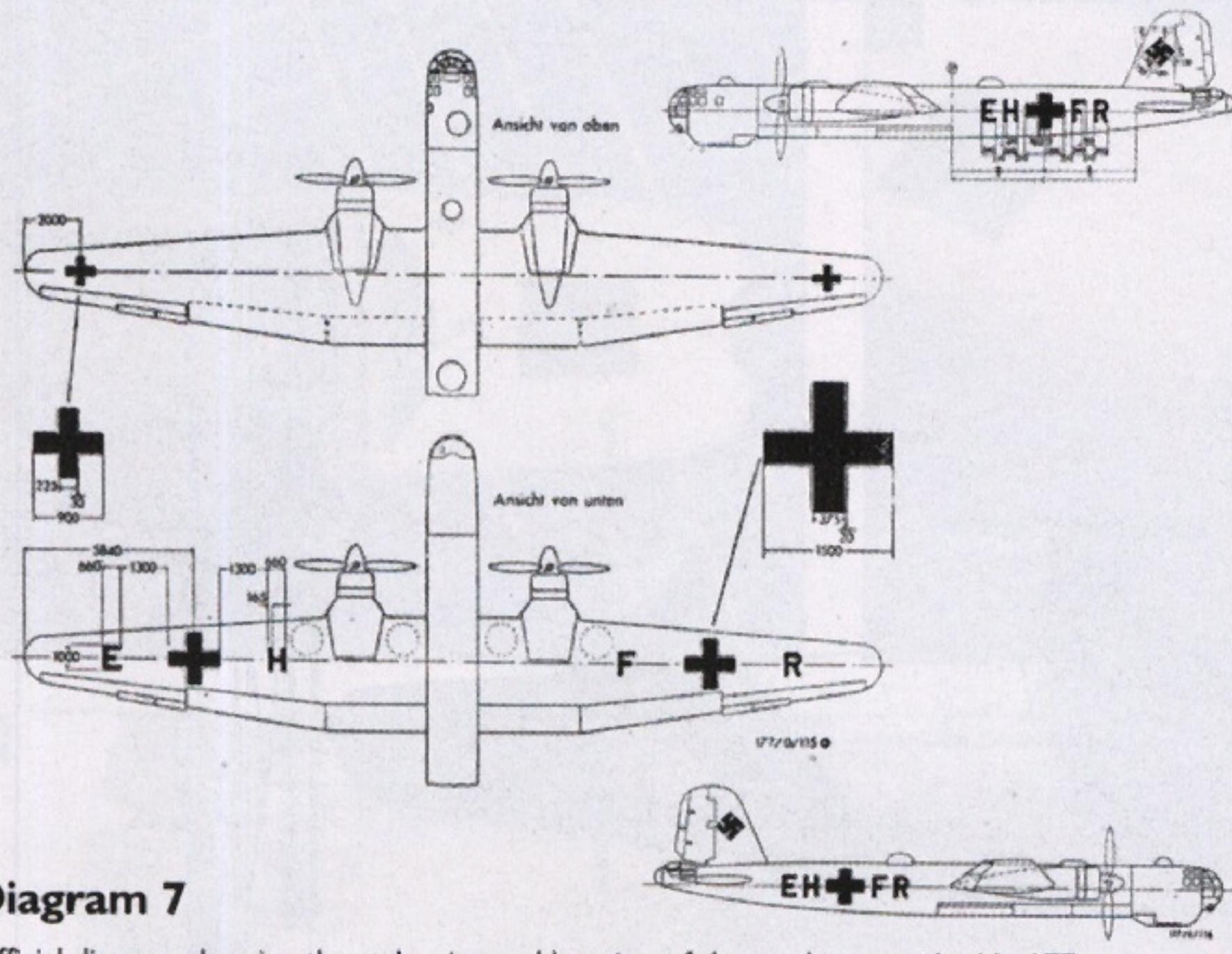


Diagram 7

Official diagram showing the style, size and location of the markings on the He 177

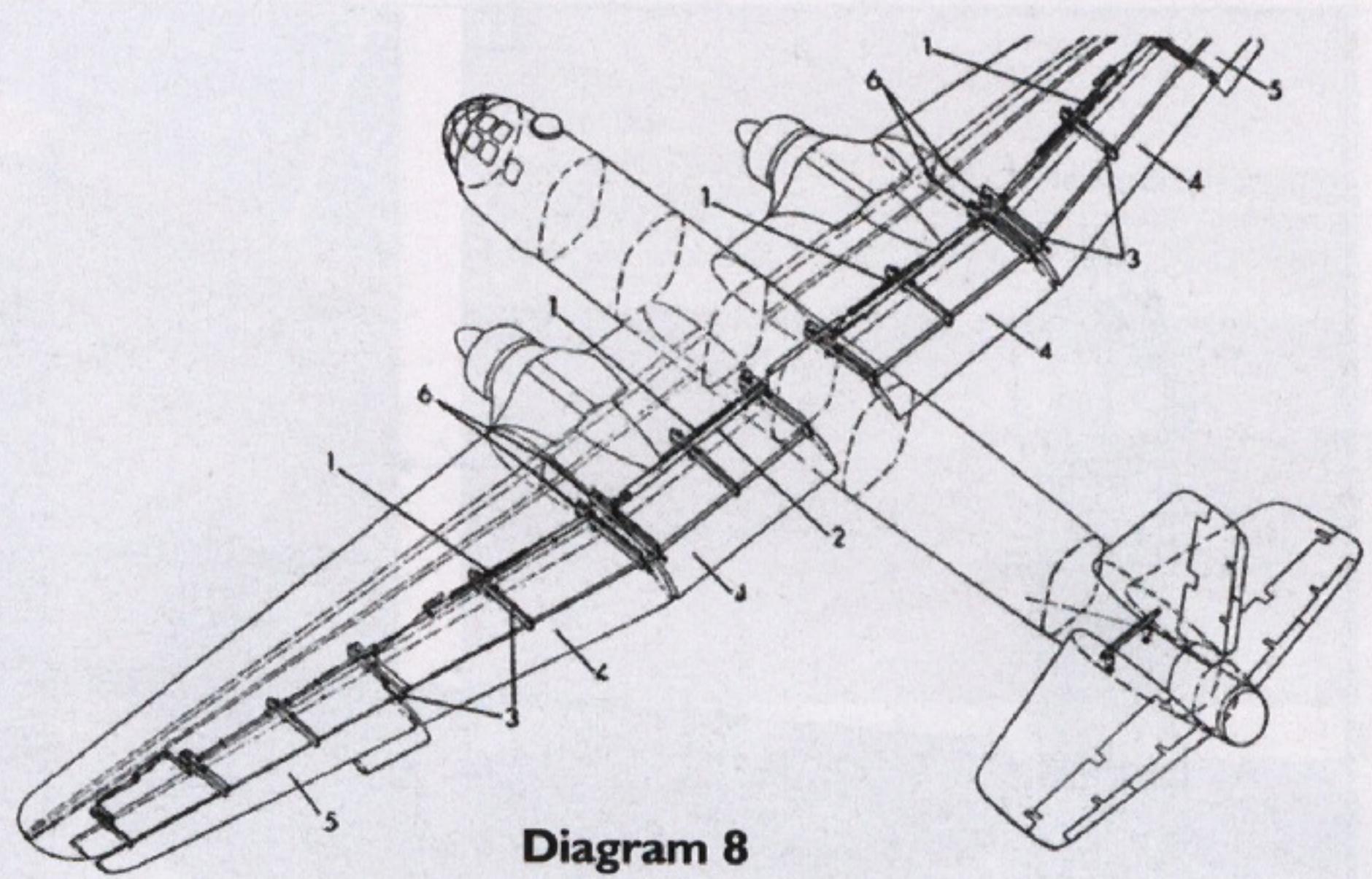


Diagram 8

Flap and ailerons of the He 177A-3

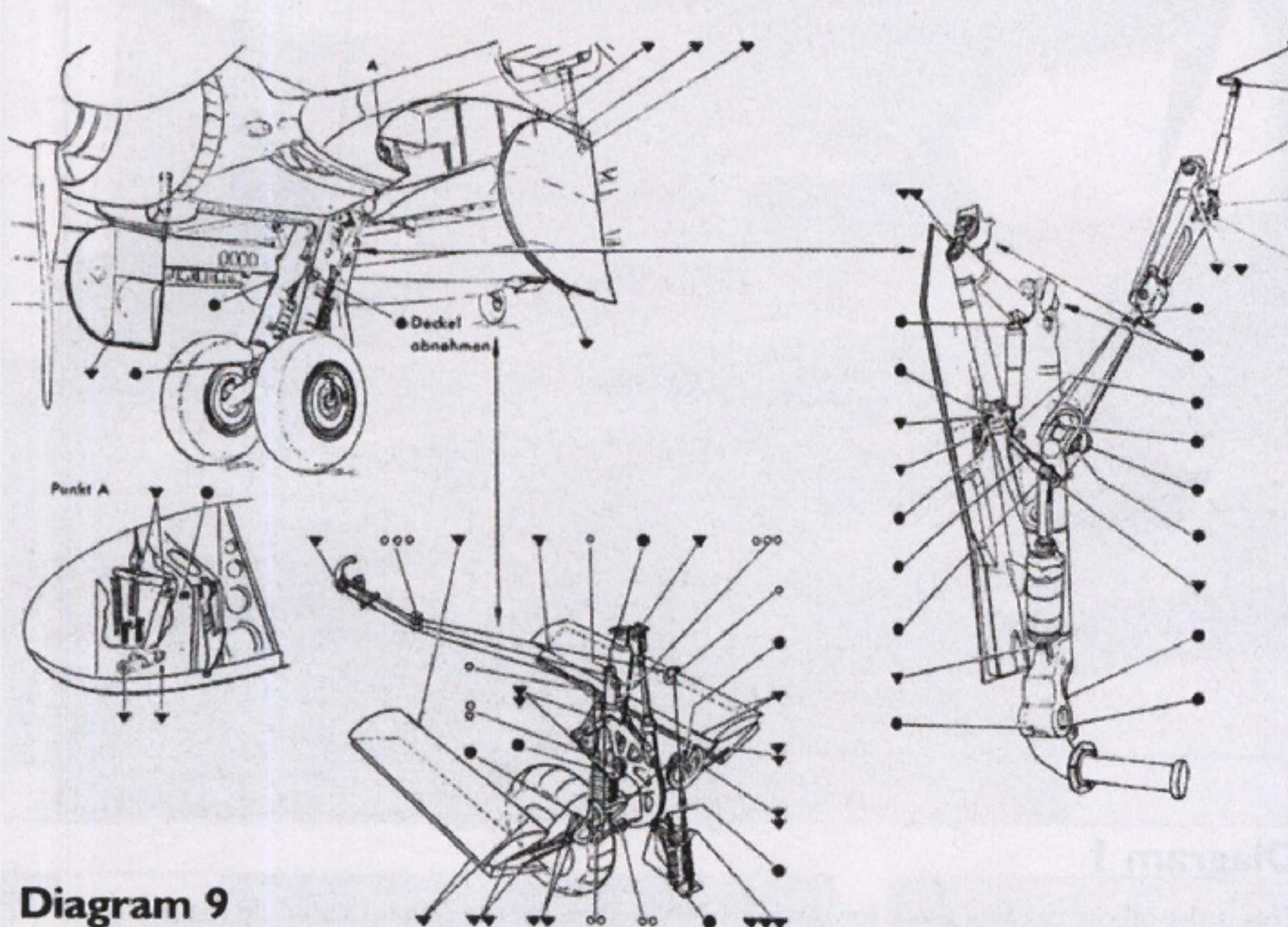


Diagram 9

This diagram from the flight manual deals with lubrication of the main and tail wheels, but it also shows the detail construction of these two units

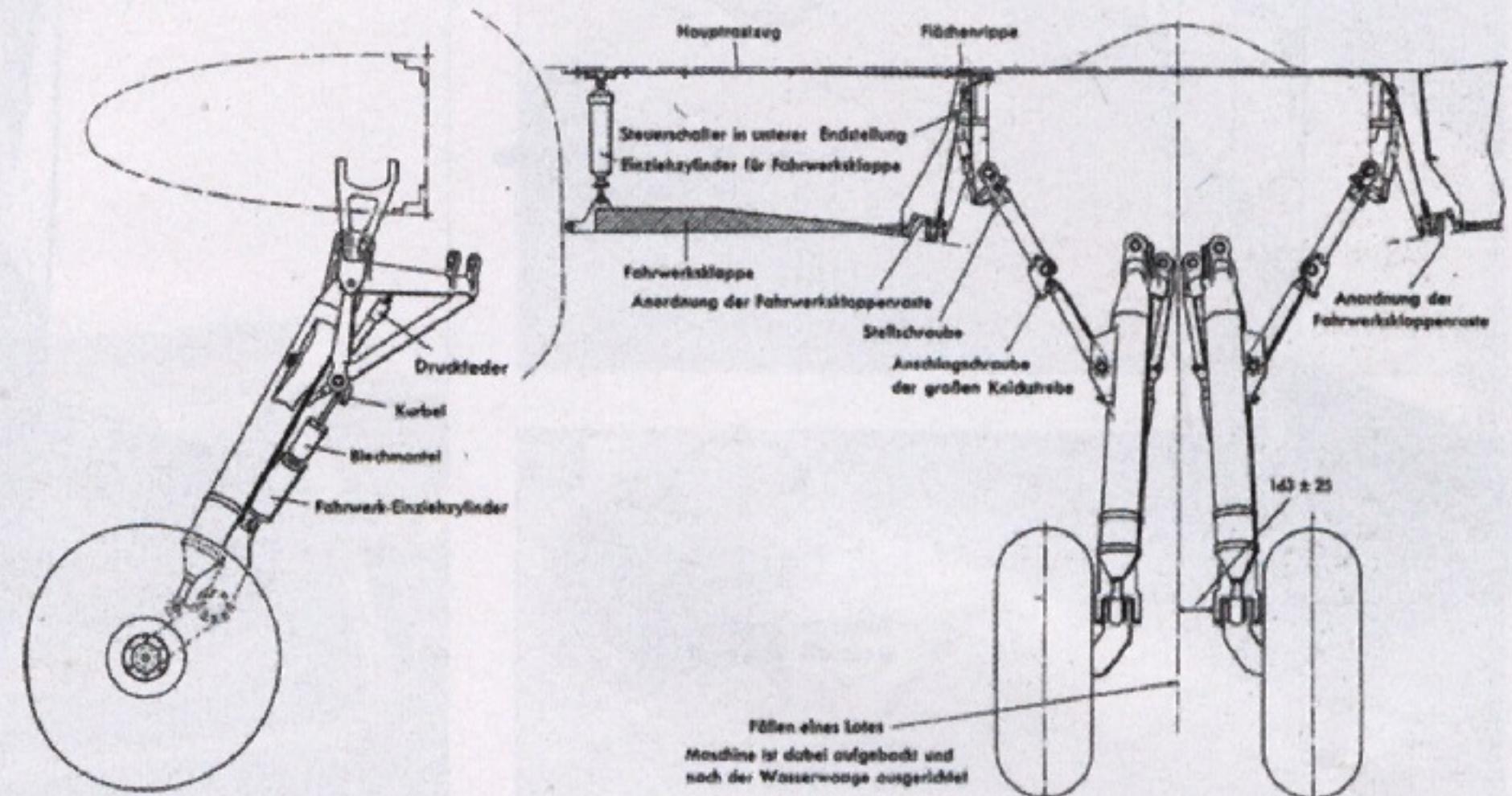


Diagram 10

Again from the flight manual, this diagram deals with the main twin oleo legs of the He 177

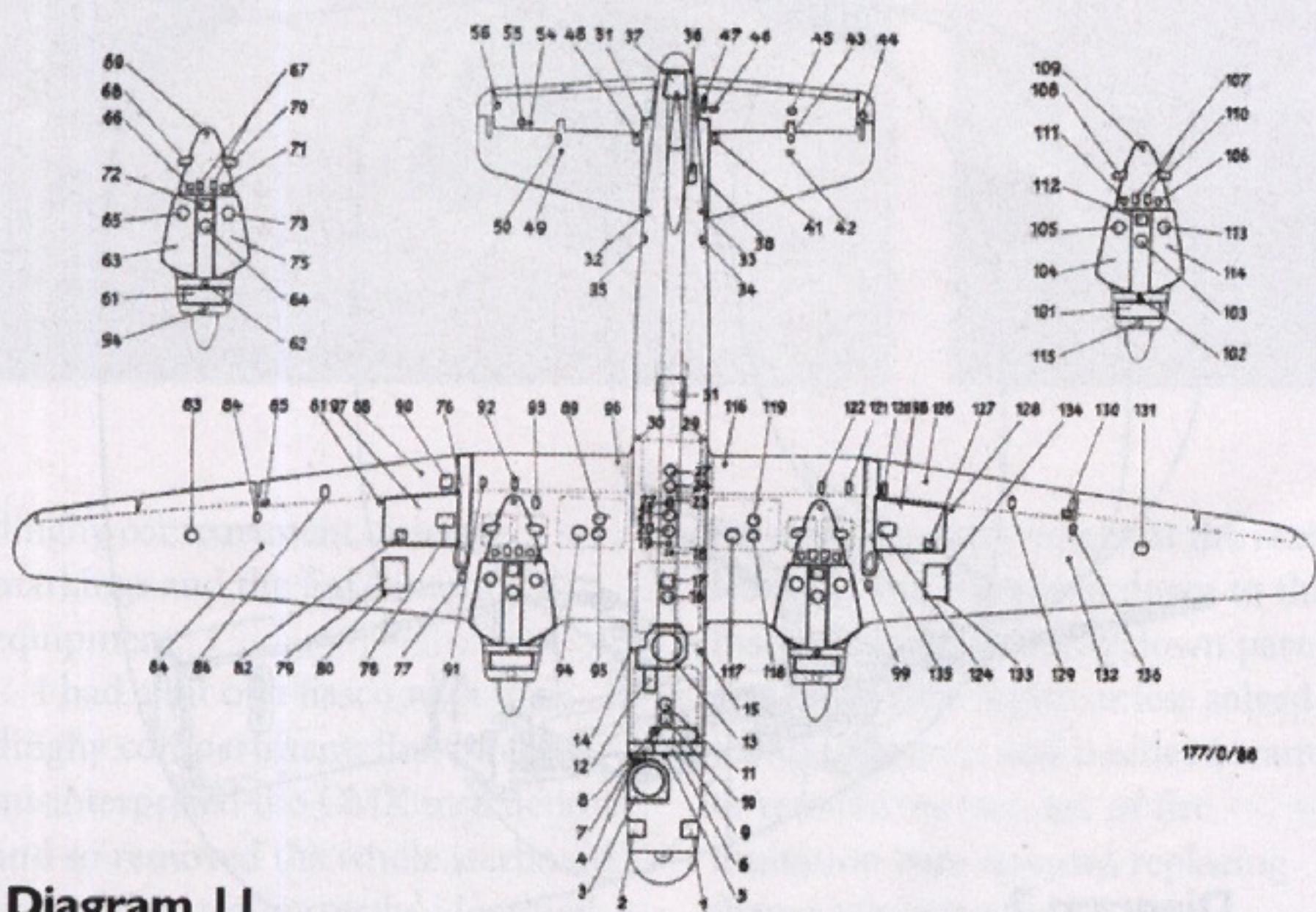


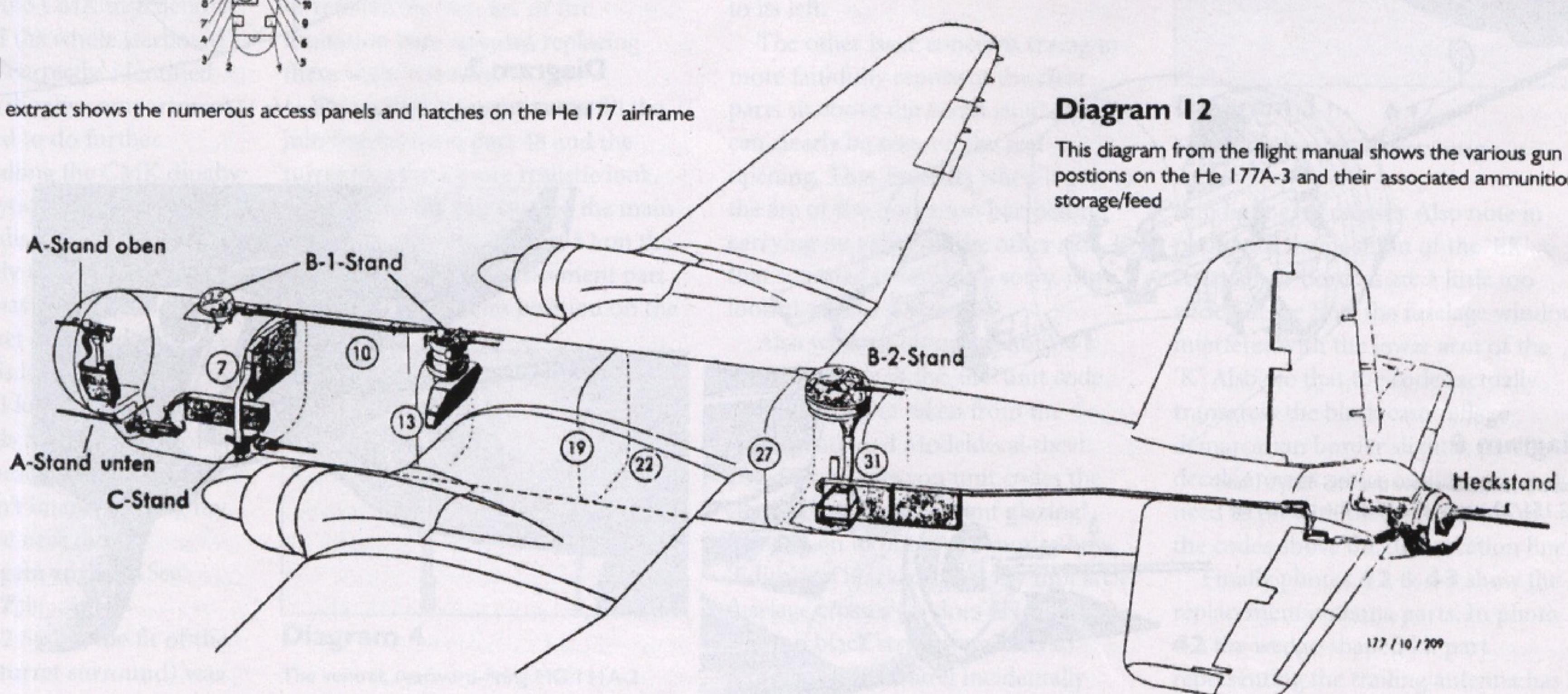
Diagram 11

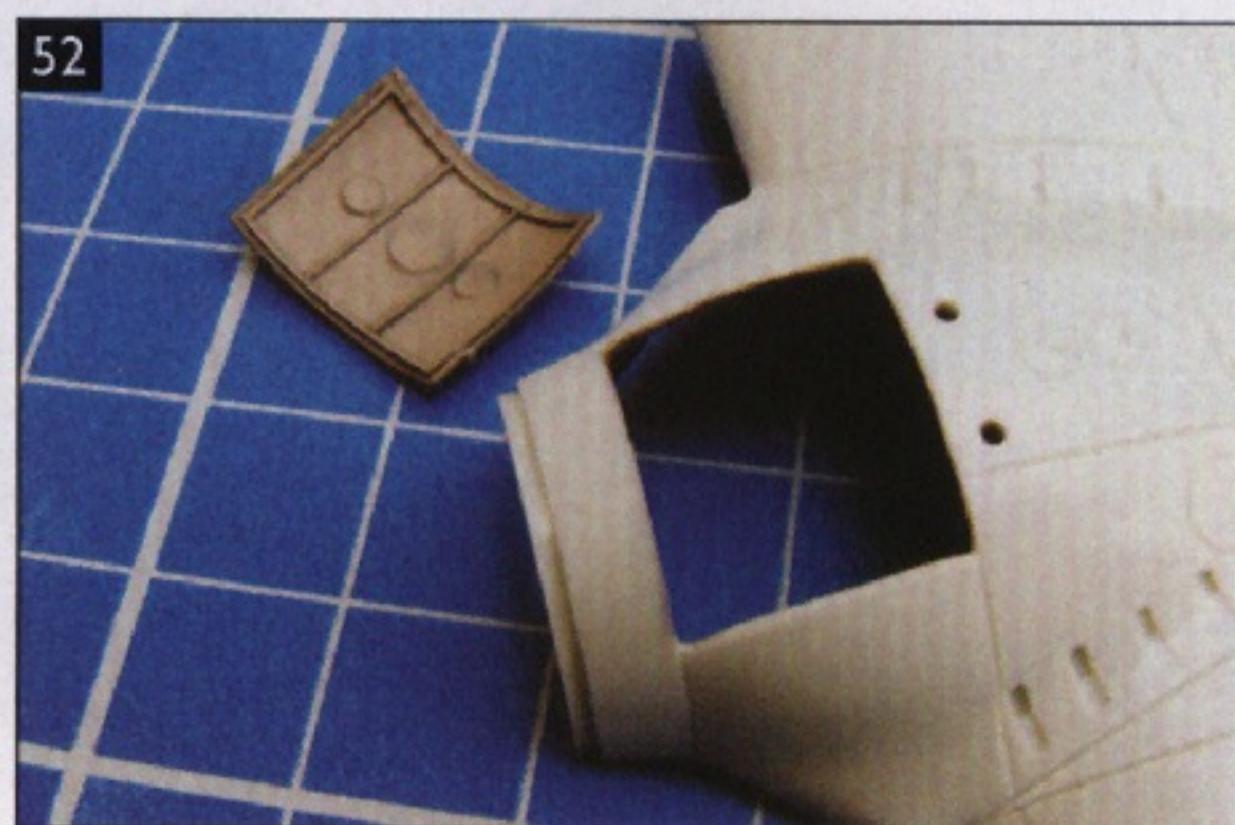
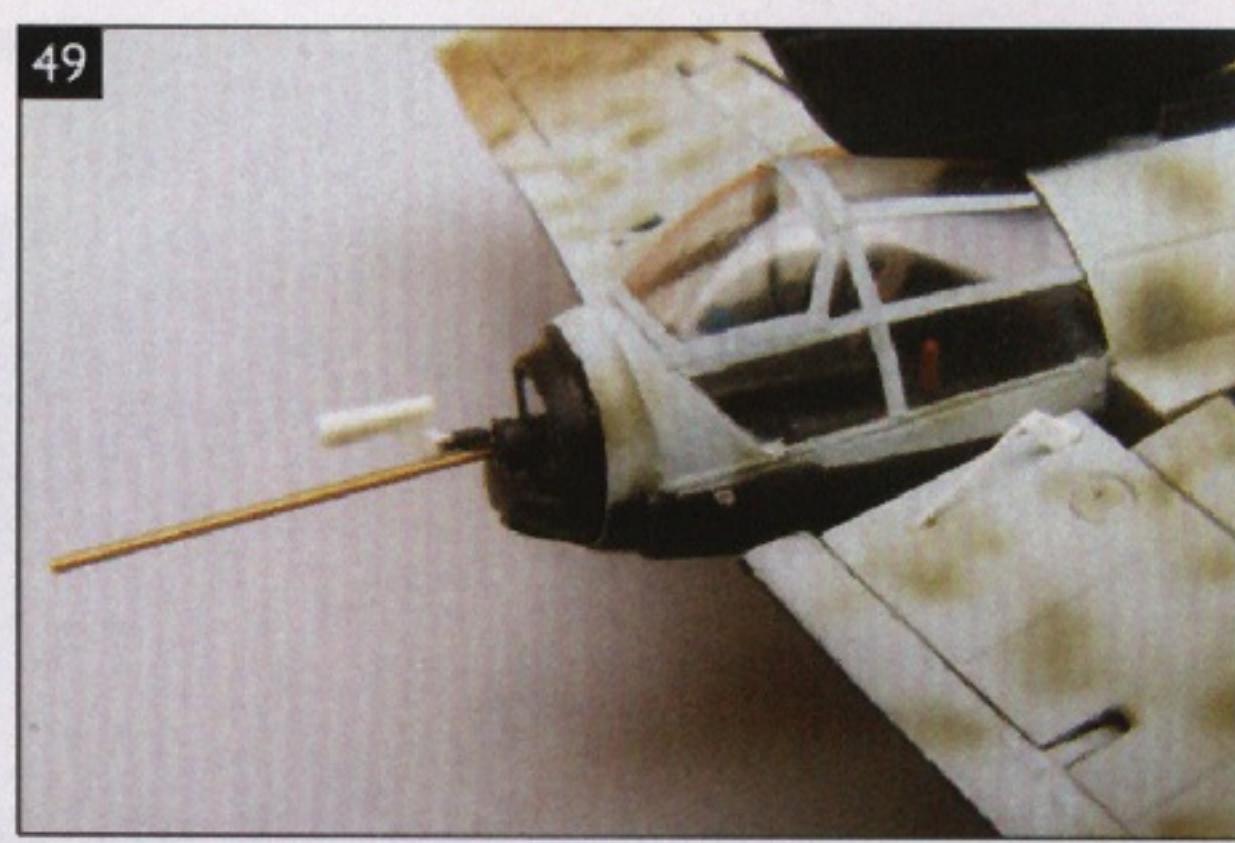
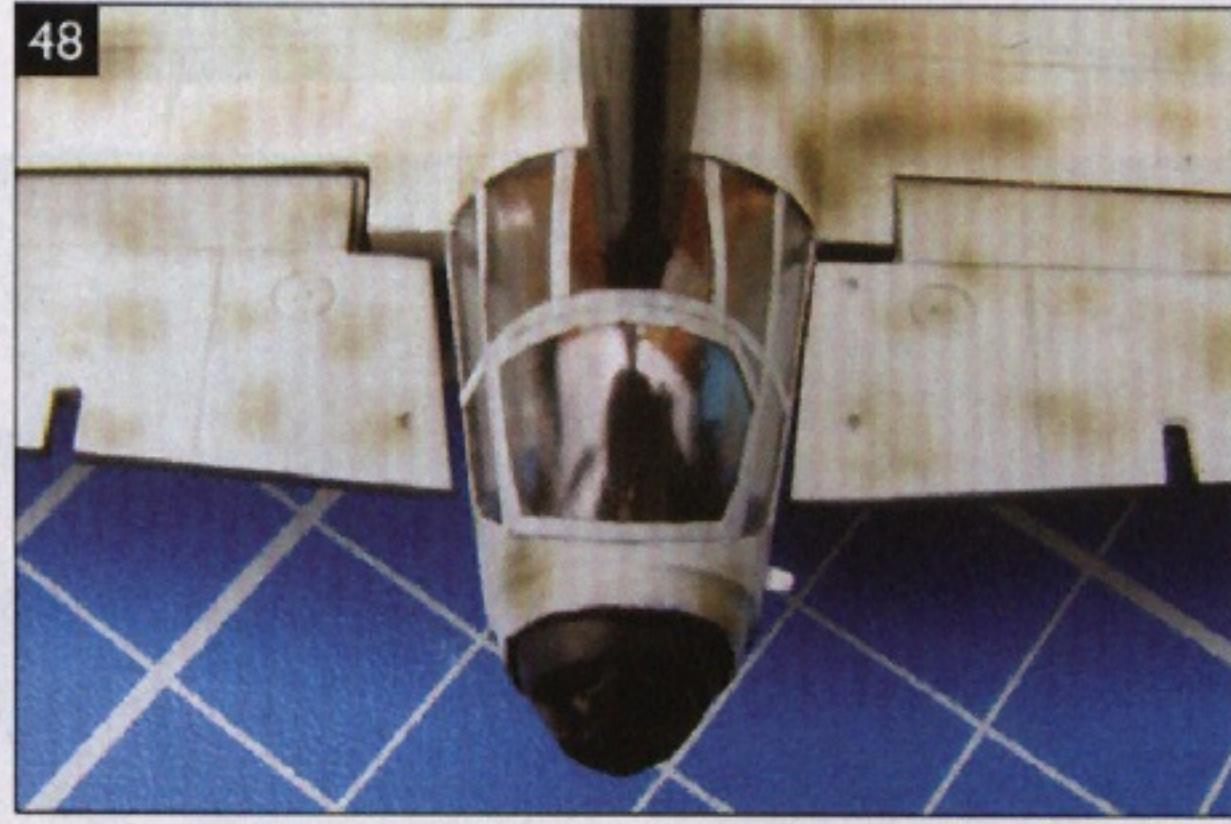
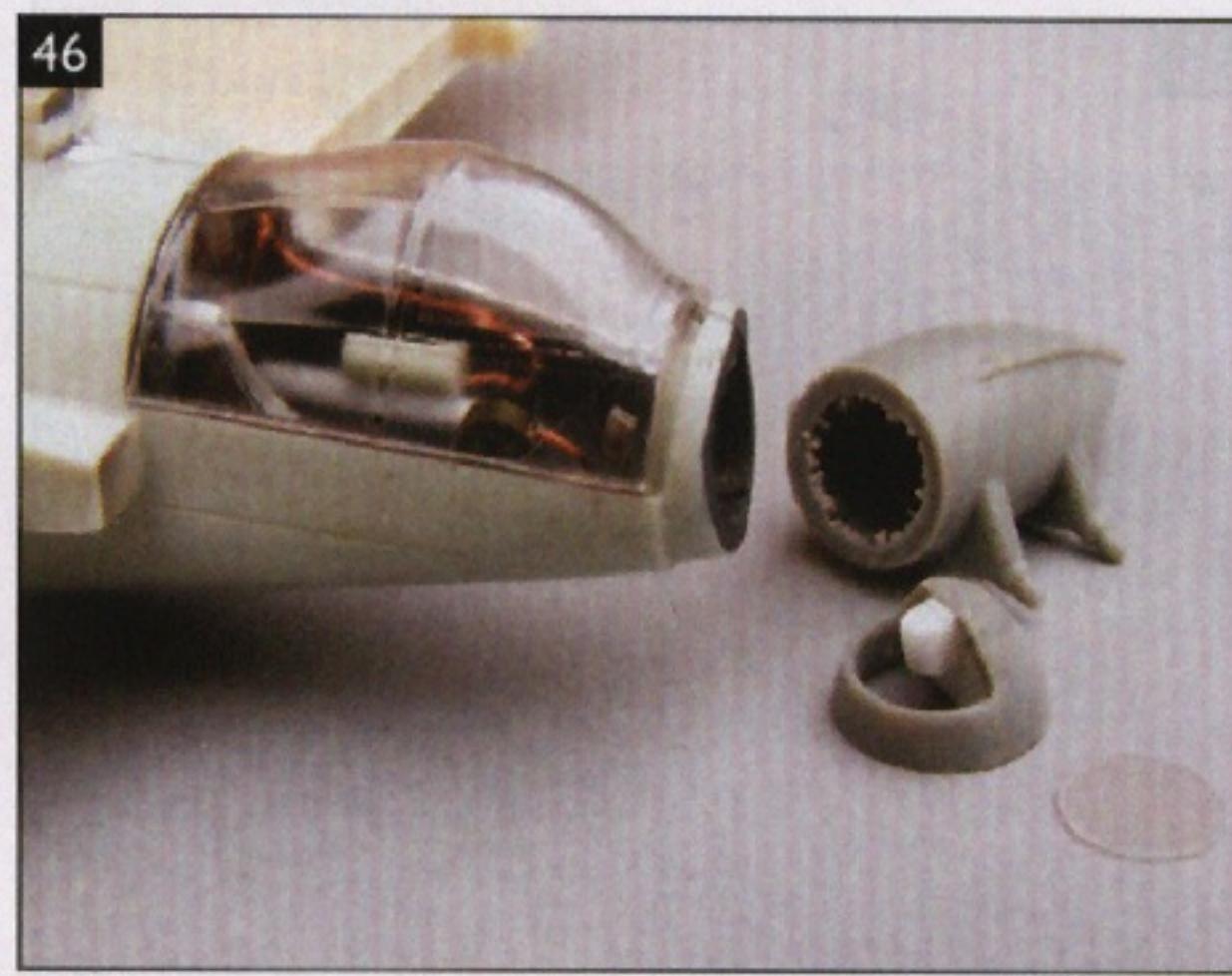
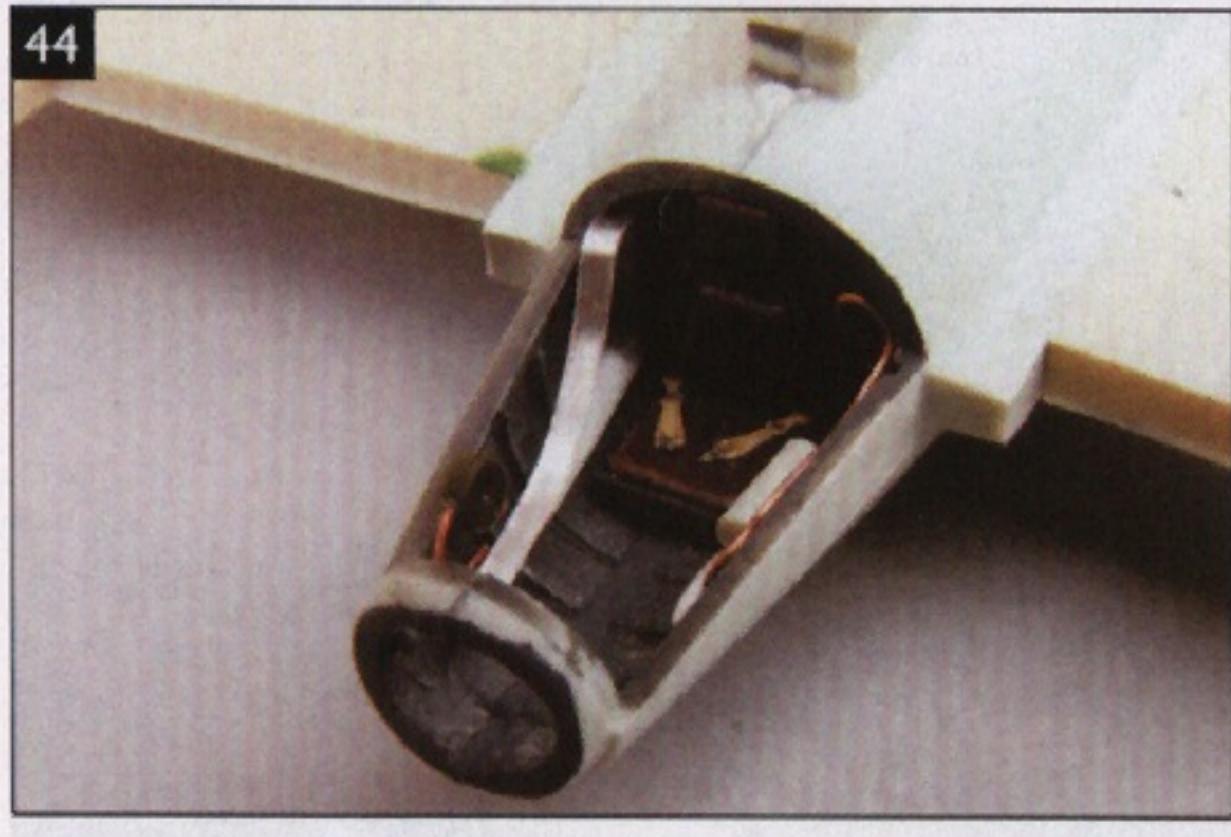
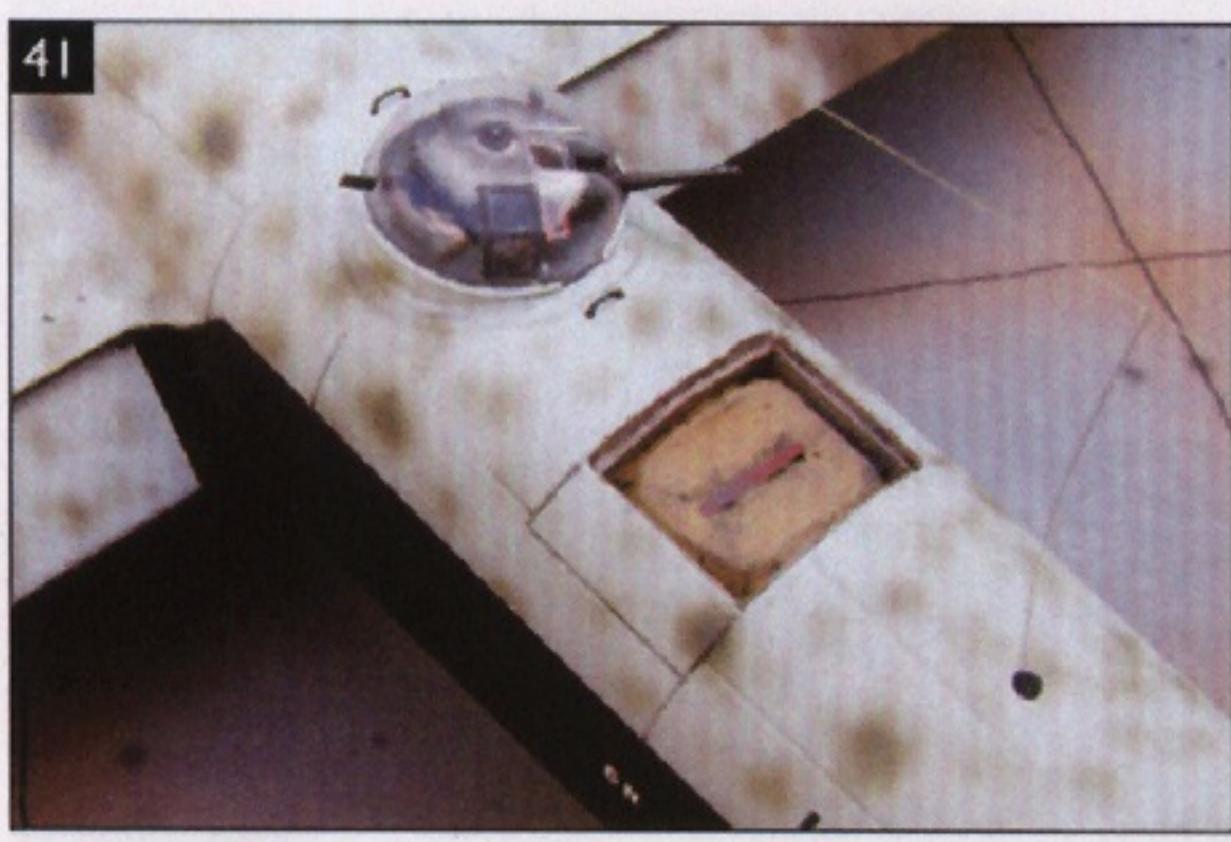
This flight manual extract shows the numerous access panels and hatches on the He 177 airframe



Diagram 12

This diagram from the flight manual shows the various gun positions on the He 177A-3 and their associated ammunition storage/feed





and in photo 43 the kit's DF loop and rack antenna has been replaced by the very welcome Extra Tech brass etched parts (the brass DF loop being secured into a hole drilled in the kit's DF loop base).

Tail

The next eight photos deal with the final aspect of the fuselage: the tail, being primarily interested in the detail of the tail gun or Heck Stand and the horizontal stabilisers.

In photo 44 you can see that I have added an ammo belt sleeve from tin, an oxygen regulator, some piping and also the fairings abreast the seat, where the fuel dumps are. Tip: use two strips of tin (ask your coffee shop to keep the seal inside the large coffee containers for you) when making these belts. This gives the right thickness but also means that if the belt has gaps in it to see the ammo, you can cut out apertures in the top layer to represent this! I only superglue the strips together at one

end, which gives me greater flexibility in manipulating the shape; once in the correct position the other end can have some thin superglue applied.

Photo 45 shows the incorrect profile of the Revell clear part as well as the woefully inadequate 'ball mount'. These two features really do need attention and photos 46 & 47 suggest a possible answer in the form of using the Falcon clear part and making your own ball mount. The mount, and the surround, should really be egg-shaped; putting in a spacer (See Photo 47) at the top of the surround helps somewhat and also helps the fit of the Falcon part which has the higher profile due to being 'egg-shaped'.

So it is a case of 'new balls please' and to this end I chopped off a wedge from the end of the Hasegawa drop tank that comes in their Wildcat kits before sawing off the whole front a little further back from the first cut. A new shelf was placed inside, followed by a mounting block, and a little later

by a semi-circle of acetate punched out with a hole punch.

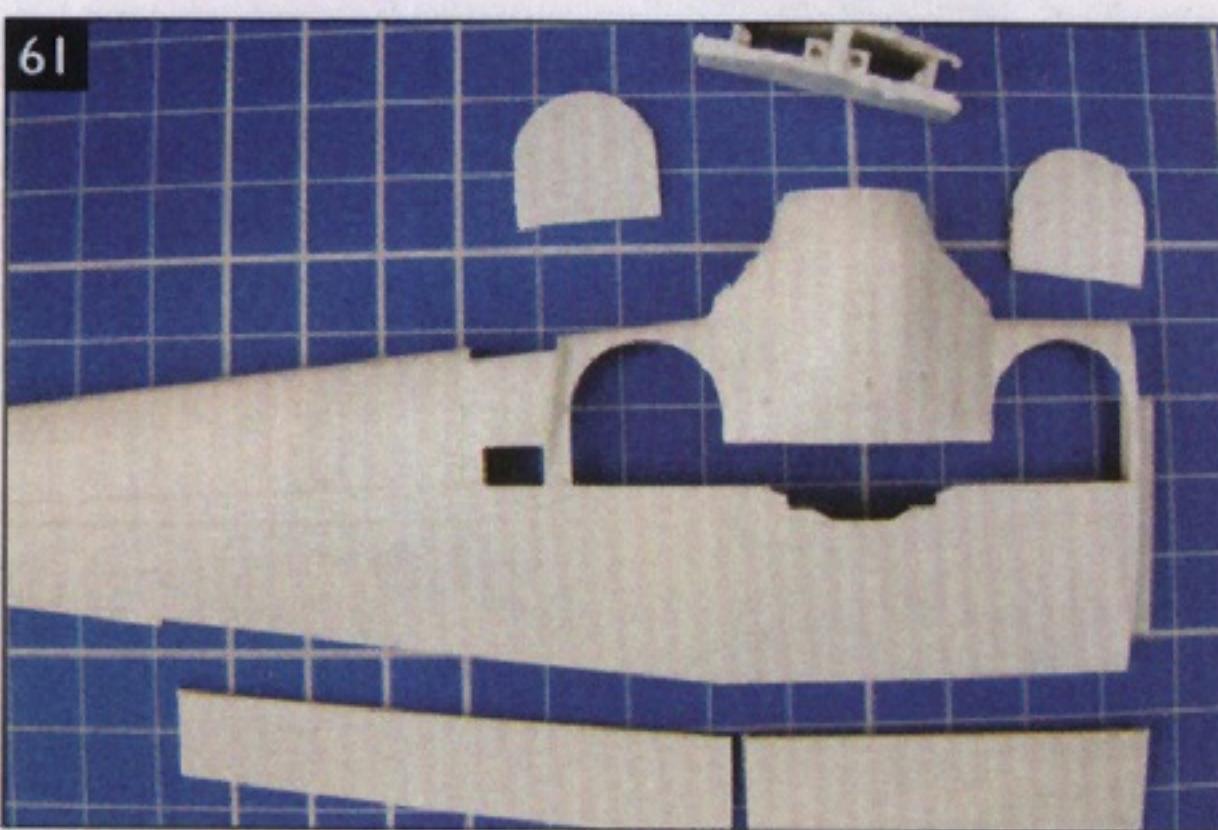
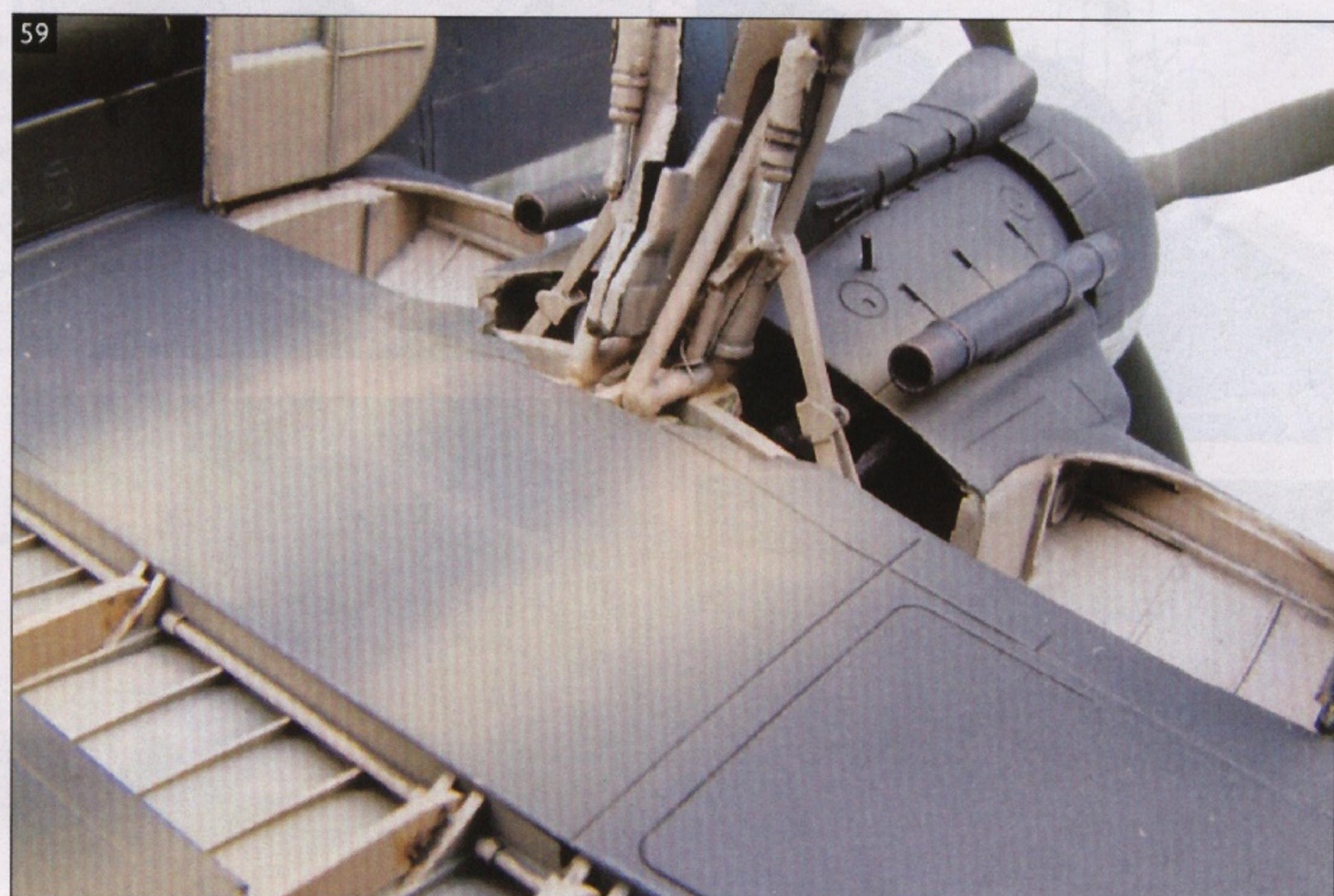
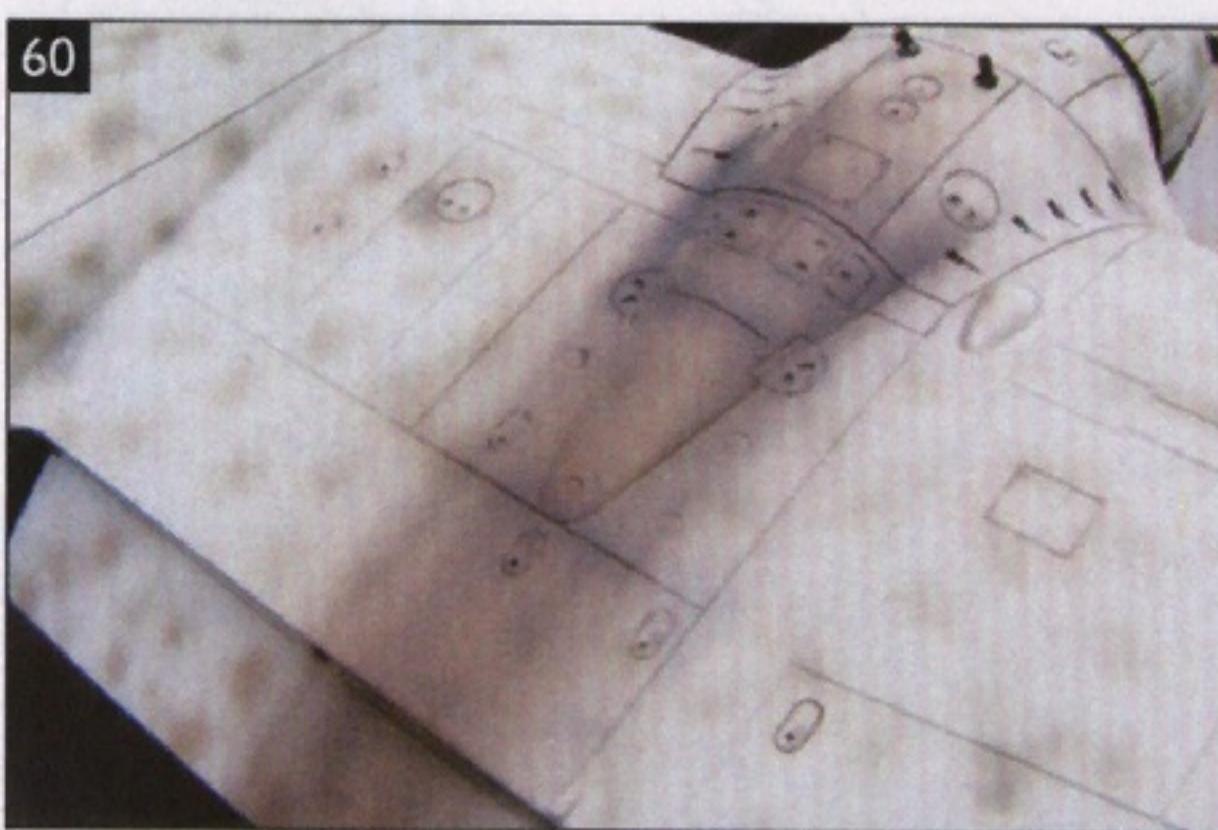
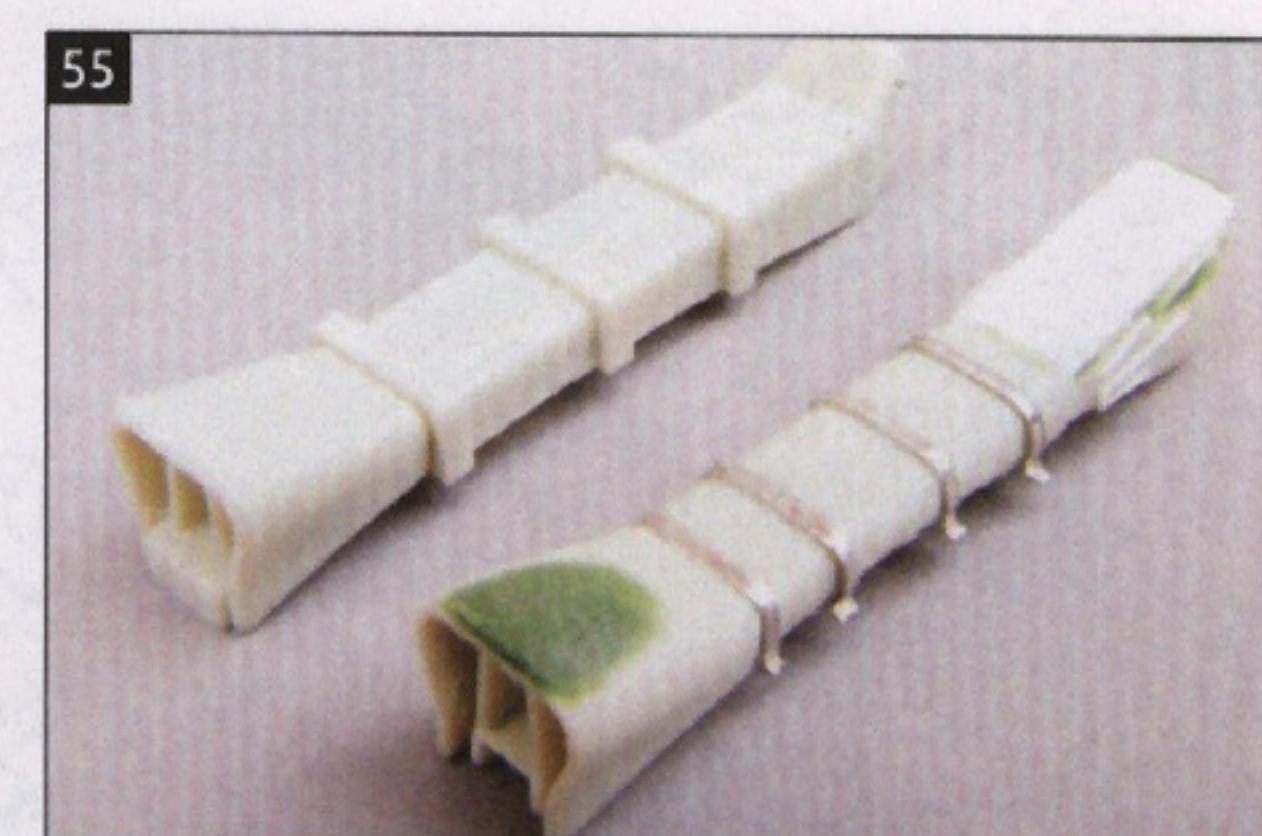
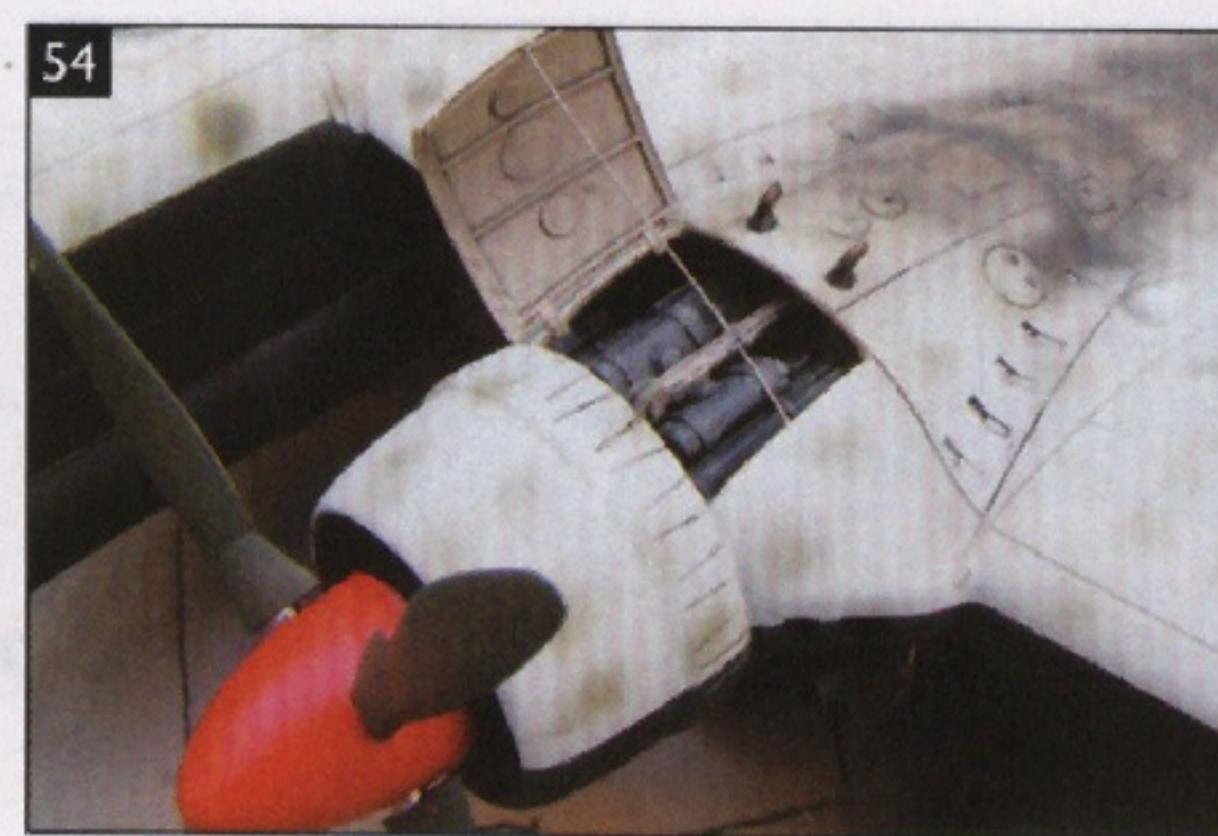
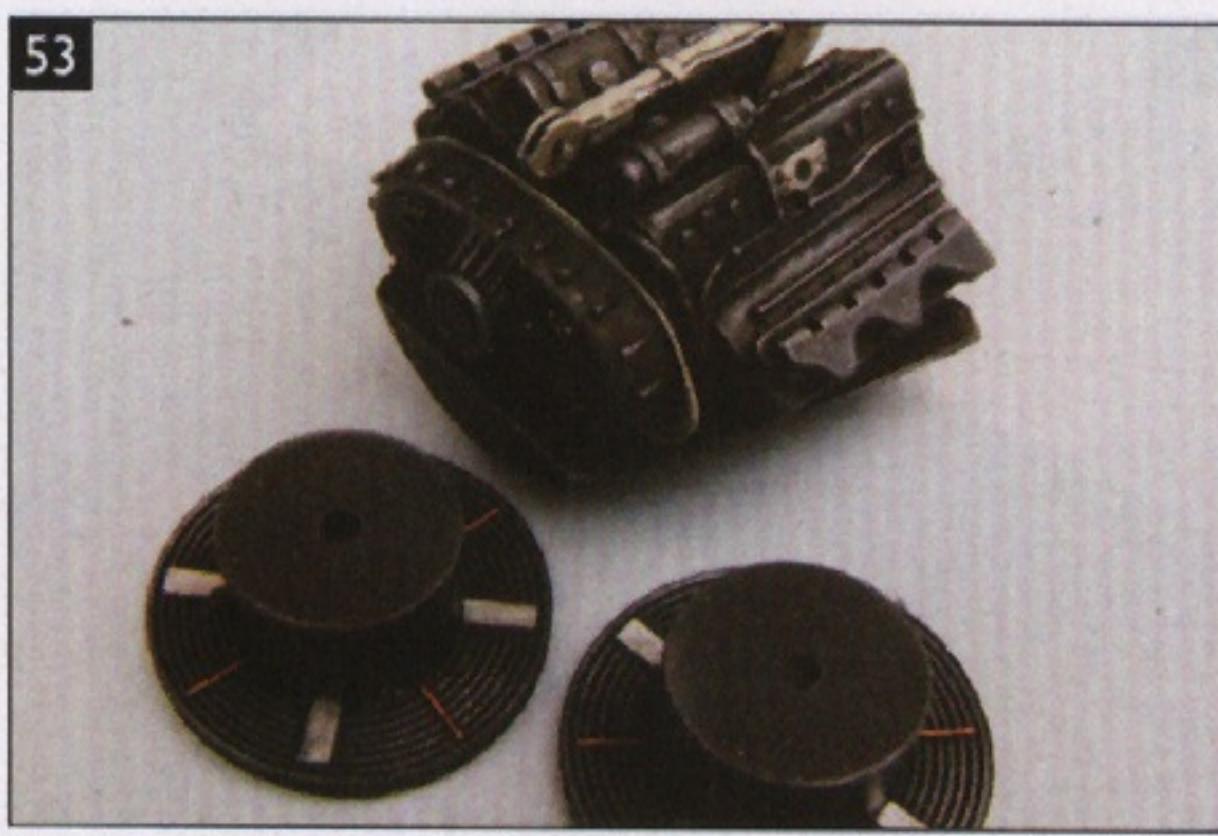
Photo 48 shows everything together as well as the addition of the decal strip canopy framing. The photograph also shows the addition of the small entry/egress step on the starboard side and finally the horrible realisation that I had overlooked a mistake by CMK whereby the gap between the tail and the elevator was greater on one side than on the other! This had to be remedied before work could go on.

Photo 49 shows how brass rod has replaced the kit's MG 151 barrel for reasons mentioned earlier, however the special night sight has been used. The photograph also shows how the kit's elevator actuators have been replaced with far thinner plastic sheet and rod. The last aspect of the ball mount to mention is the guide rail seen in photo 50. Notice how it is offset to starboard and only glued at the base; there should be a little bit of 'give' at the end. Finally photo 51, I

hope, gives an appreciation of the work put into this area. Note also the swastika on the tail; as mentioned earlier the Eagle Strike offerings are too small for most of the options on this sheet. The only ones I could find the right size were on an old Almark decal sheet dedicated to various styles of this aspect of Nazi Germany insignia [Eduard do the correct size swastikas in their Express Mask set for the He 177 - Ed]. Even these decals needed work, not because of their age but because the borders were far too thick resulting in my trying to hand paint out nearly half the width of the offending borders! In the close-up photograph of 'Edith's' tail in the He 177, 277, 274 book the outline to the swastika is so thin it is unclear whether it is dirty white or light grey?

Note: The smaller Eagle Strike swastikas are actually correct but just not commonly used! The smaller swastika can be seen on the following He 177s however:

• The A-3 used for torpedo trials,



TM+IF (provided on the same decal sheet as 'Edith,' just don't paint the lower surfaces black as this is not correct. You will therefore need to find code letters for the lower wing!).

• TM+IU, the A-5 (with A-3 style ailerons?) used for experimenting with towed fuel tanks - 'Schleppgerat' (I think this is provided on Eagle Strikes first He 177 decal sheet? If so all the decals you have are correct, as is the paint scheme).

• A-5 - KM+UD, used by II./KG 40 but still in factory codes.

• A-3 - VD+XS of FFS (B) 16.

• Another A-3 machine of this unit with a large white '32' painted on the rudder

Wing Area

With the major aspects of the fuselage covered it is now time to look at the next big undertaking, the wing area. This will involve looking at the CMK engine, undercarriage and flap sets, as well as modifying the ailerons to convert the A-5 into the earlier A-3.

CMK Engine Set

The above three photographs (See Photos 52, 53 & 54) show the preparation work necessary for the CMK engine hatch, how well these parts paint up and the finished result. I did have a bit of difficulty with the engine fit, necessitating the grinding down of the back of the engine where it butted up against the rear of the CMK wheel well. The front area of the moulding block was treated in the same way to get a better fit there. One thing that does concern me on the finished model are the three hatches (seen in photo 54) on the reverse of the CMK engine hatch. On the upper side, either side of the central hatch is a duct, so that normally would indicate there is piping leading up to the opening does it not? By the way take a careful look at the engine cowlings that come in your set, the fronts of mine were not completely level resulting in having to cut them back until they were level all the way

round! Be careful also with the resin cowl flaps, they are very fragile.

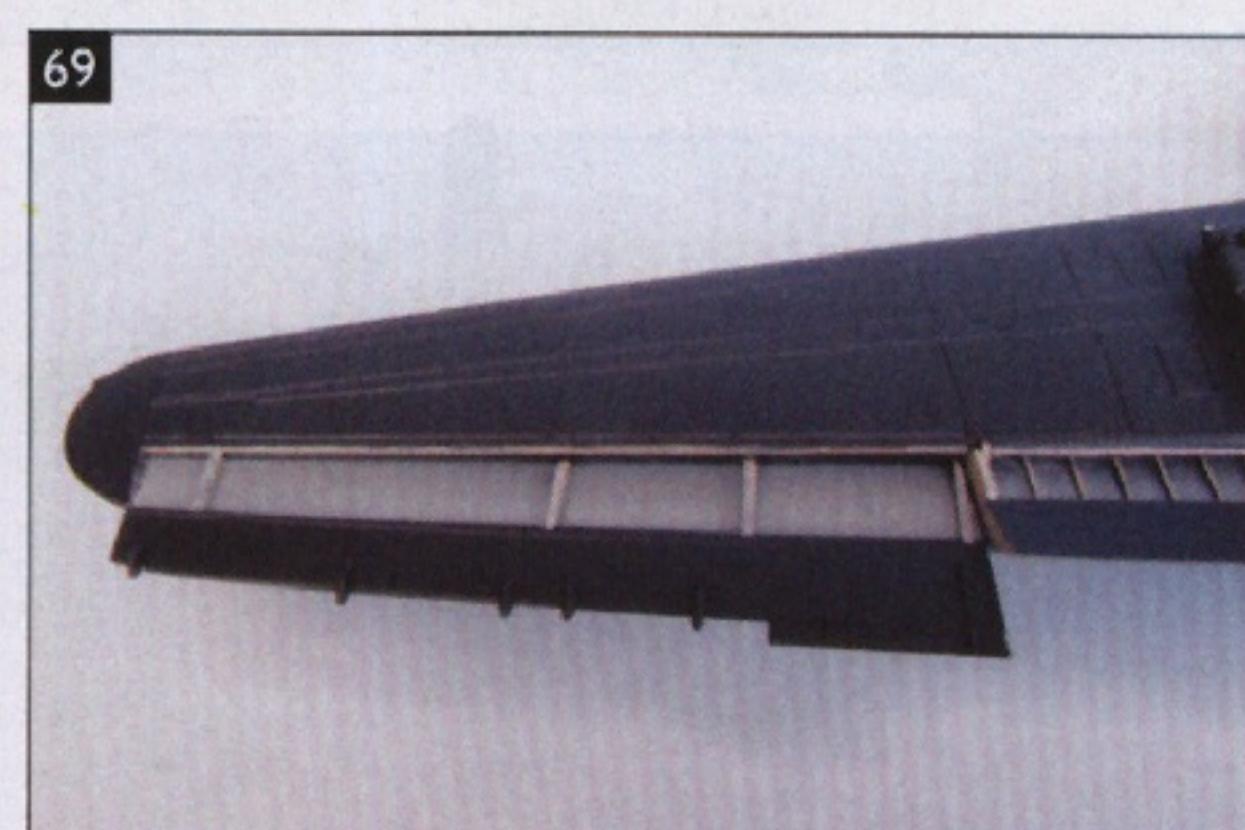
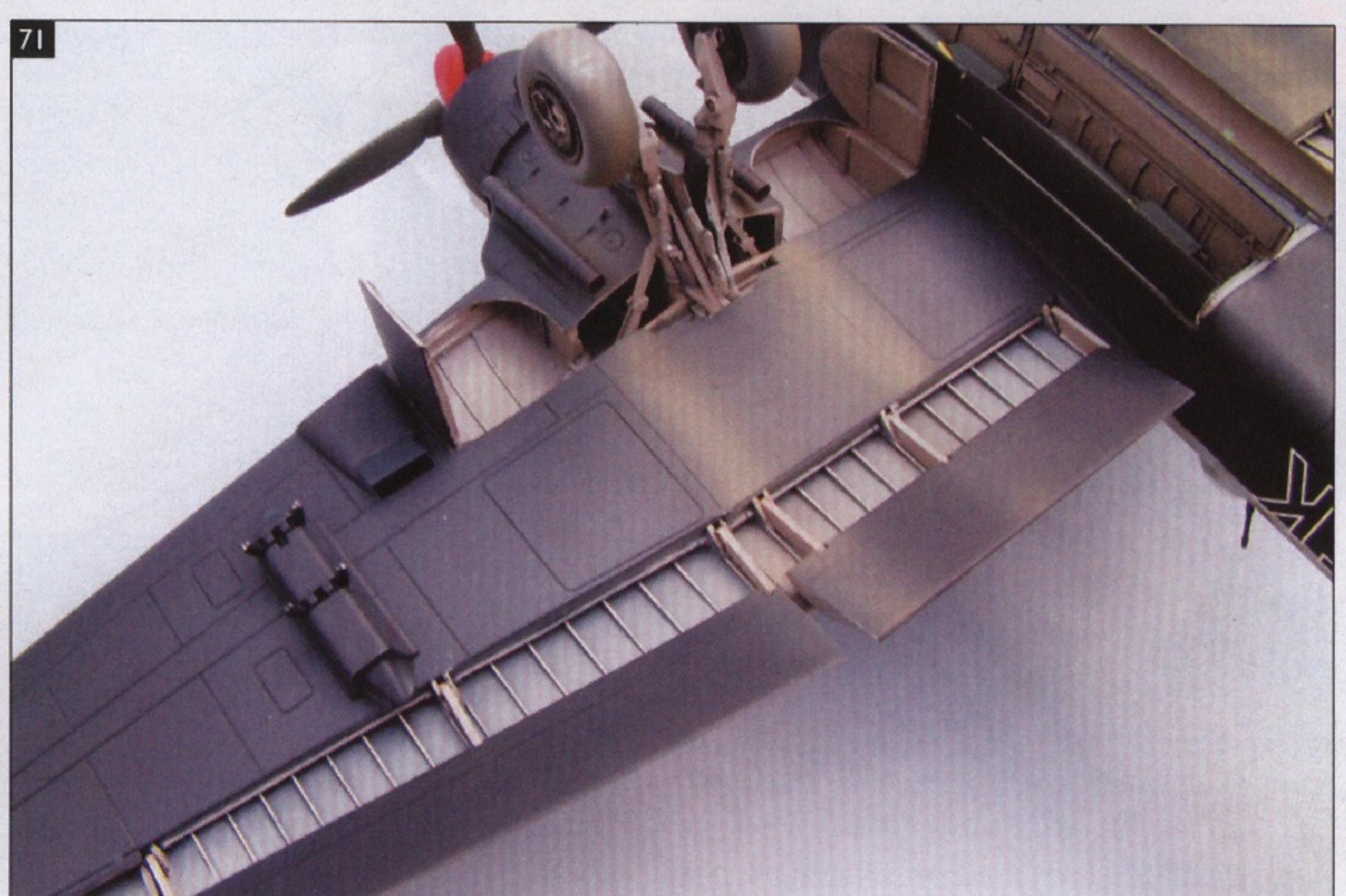
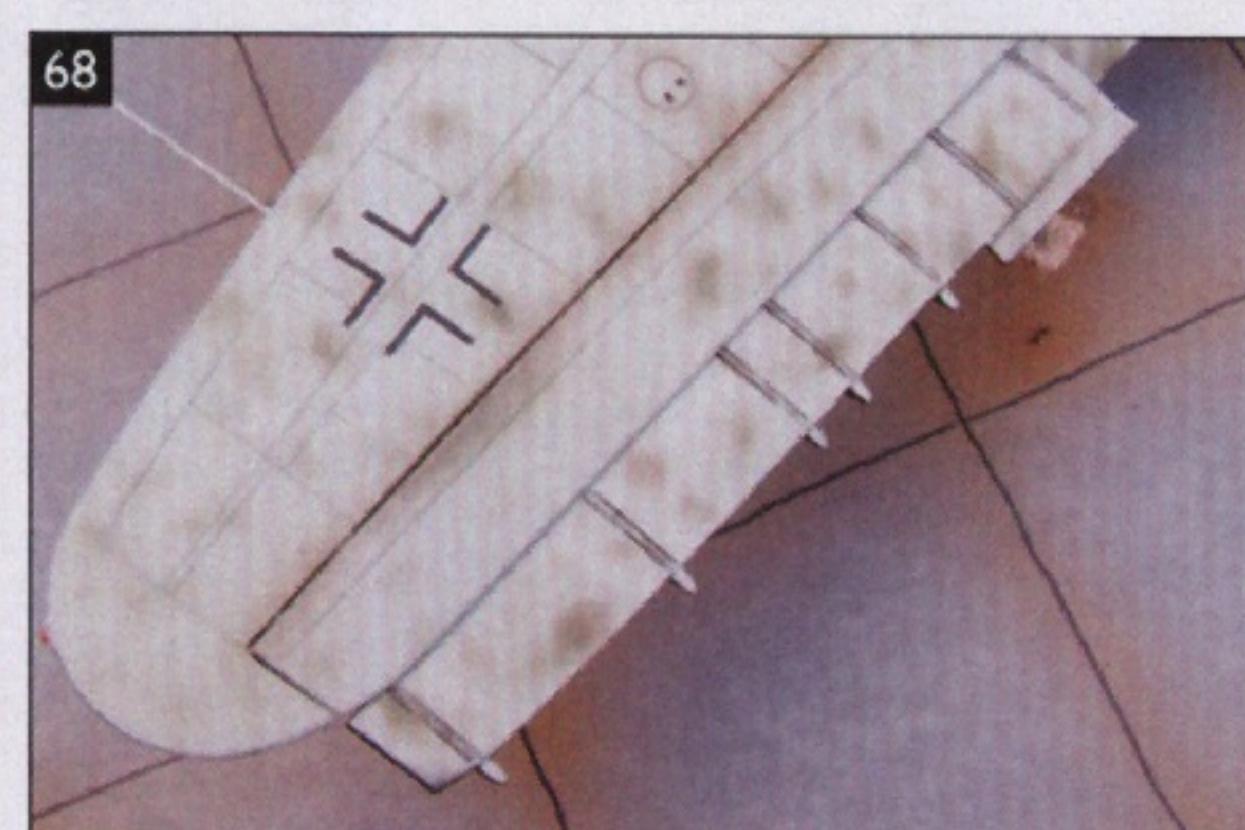
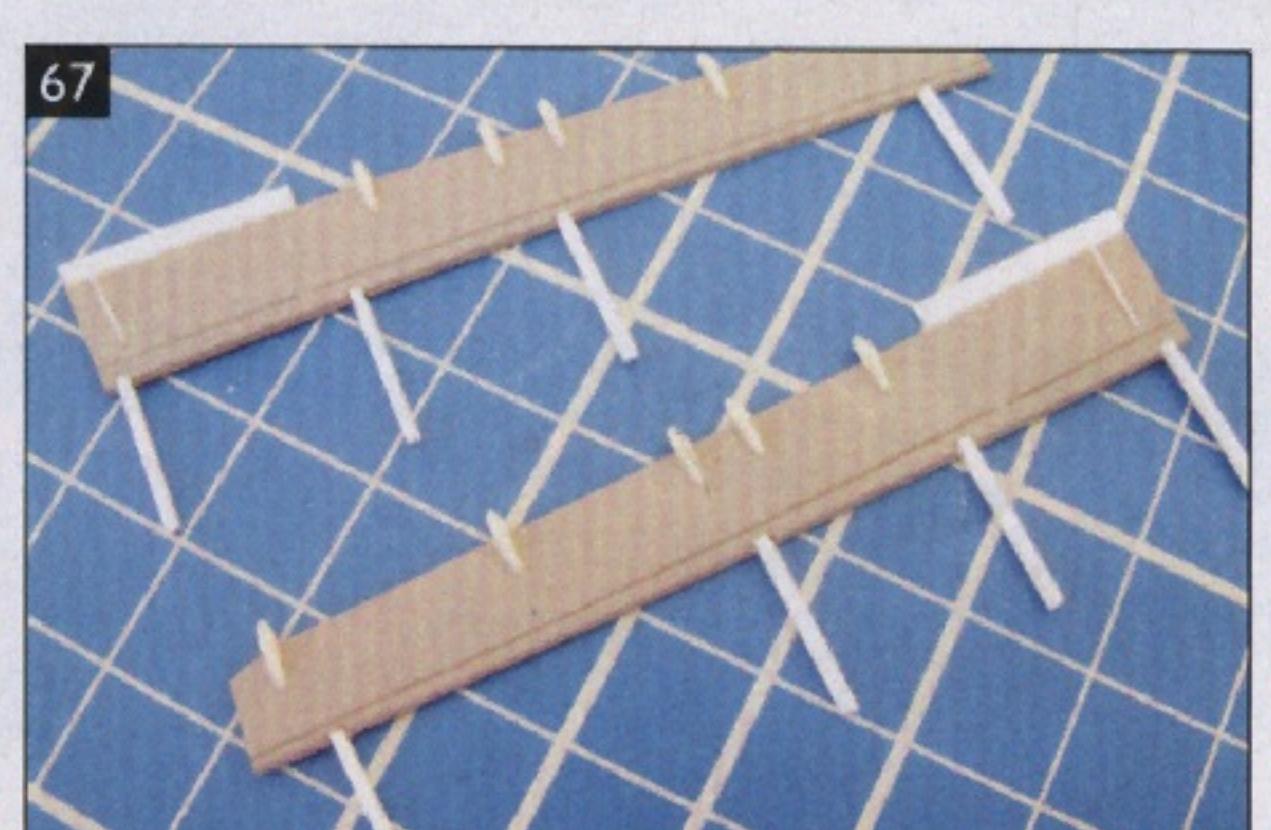
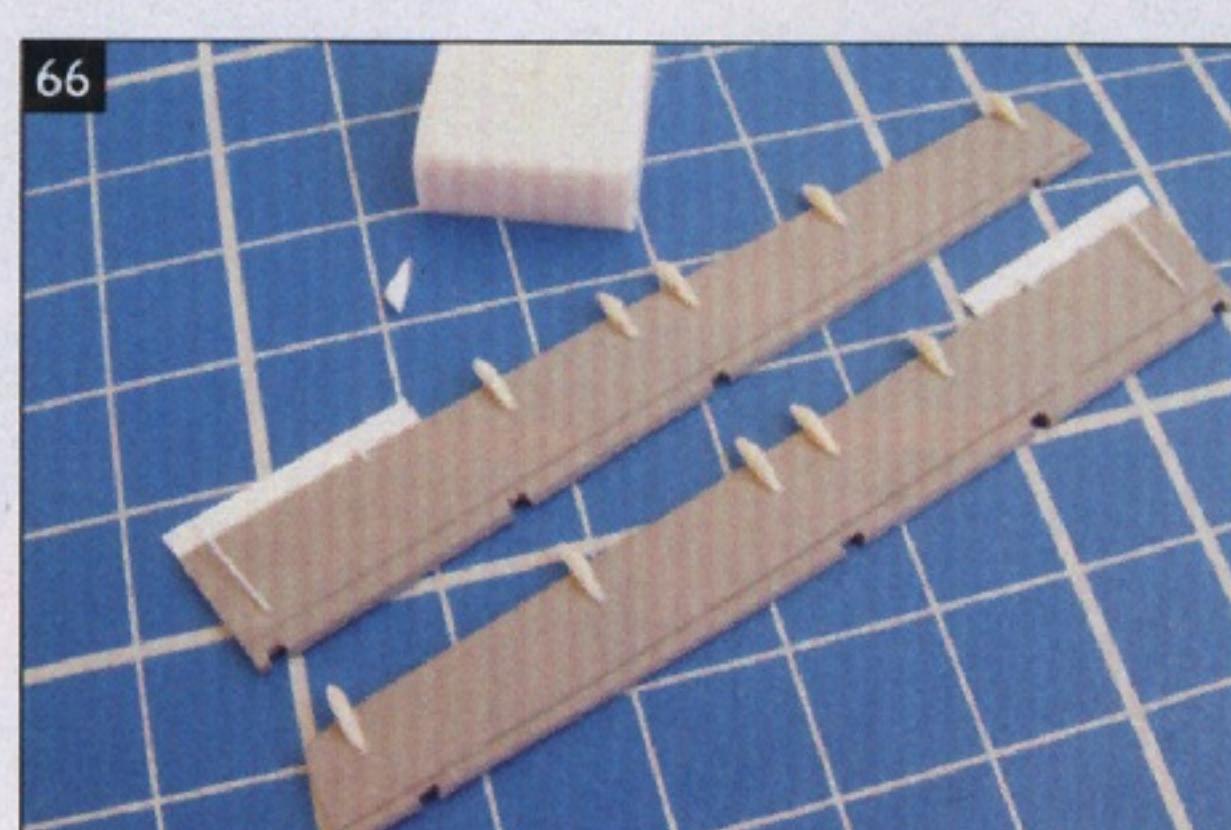
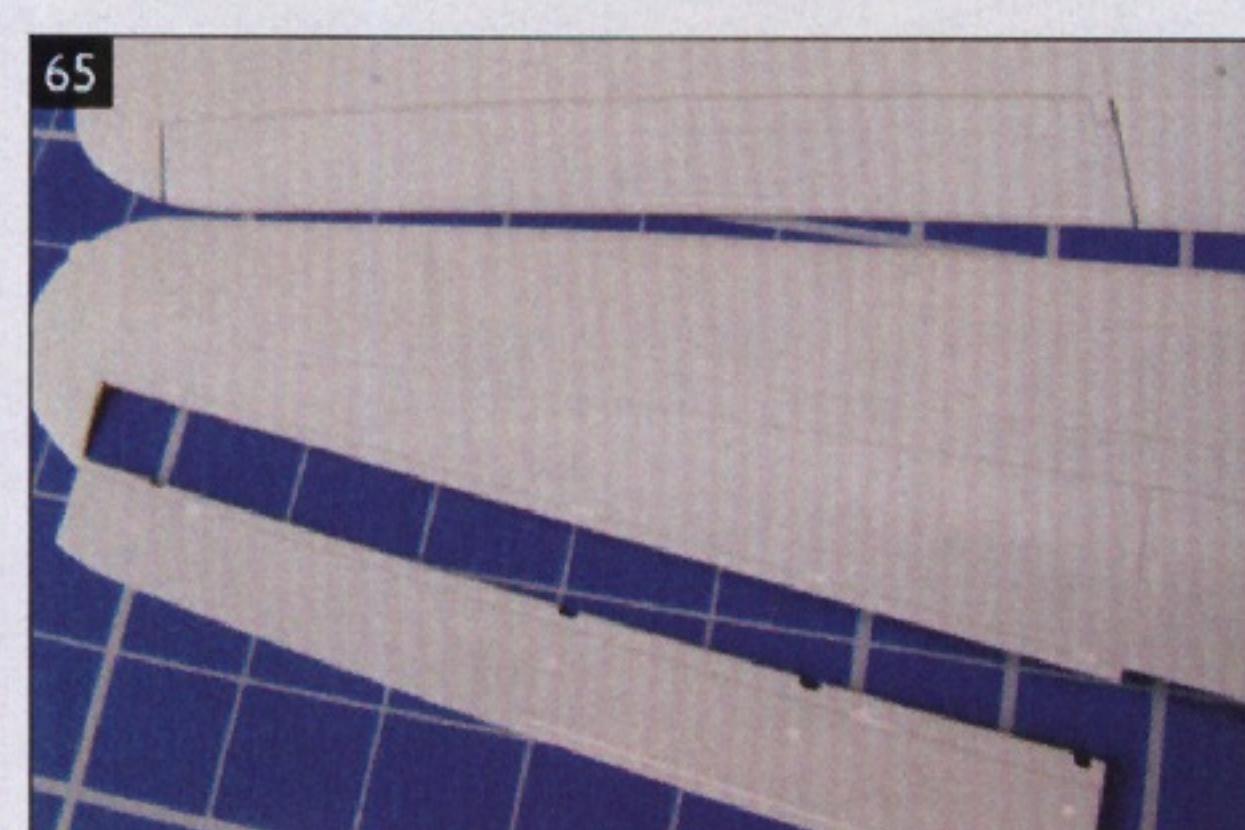
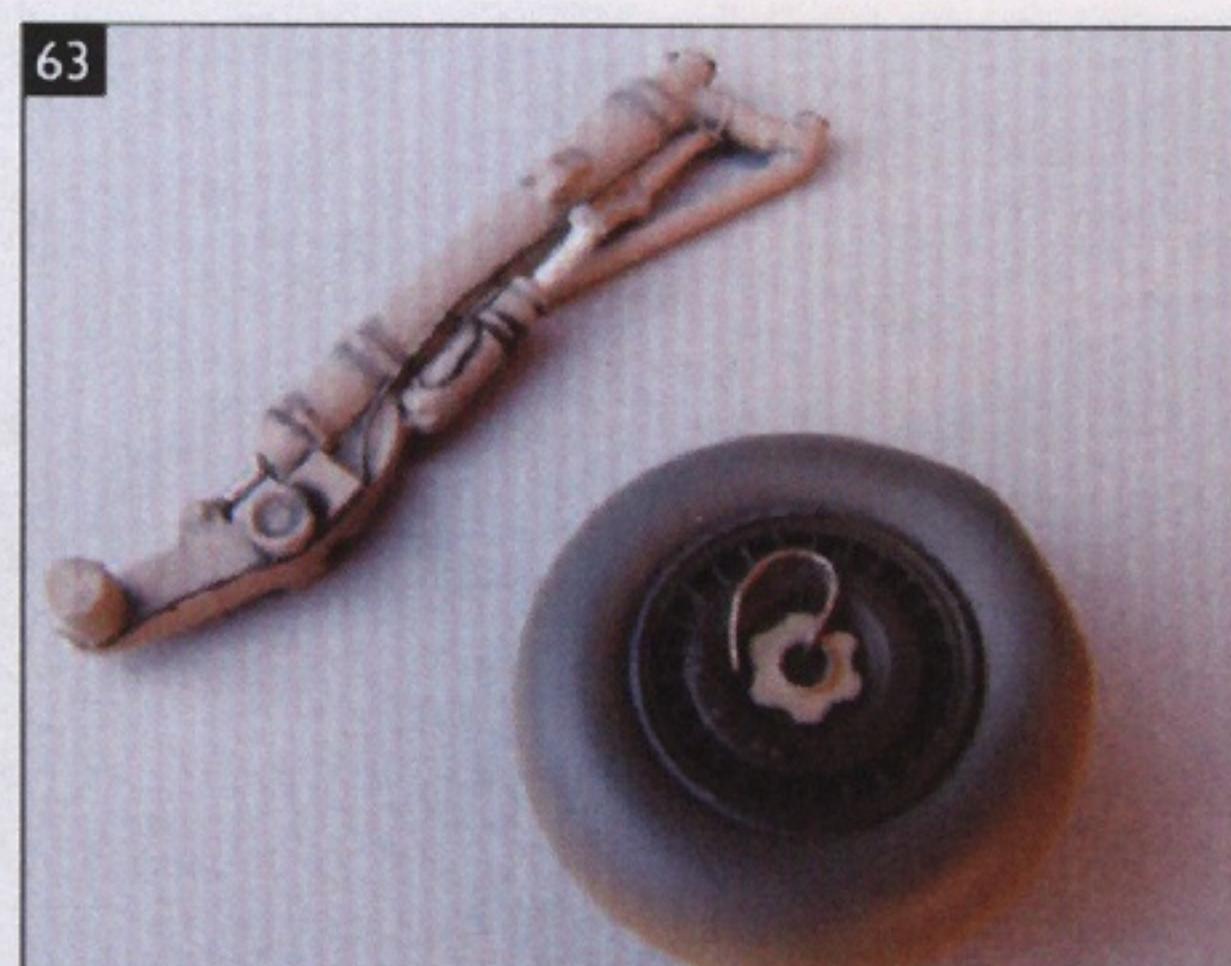
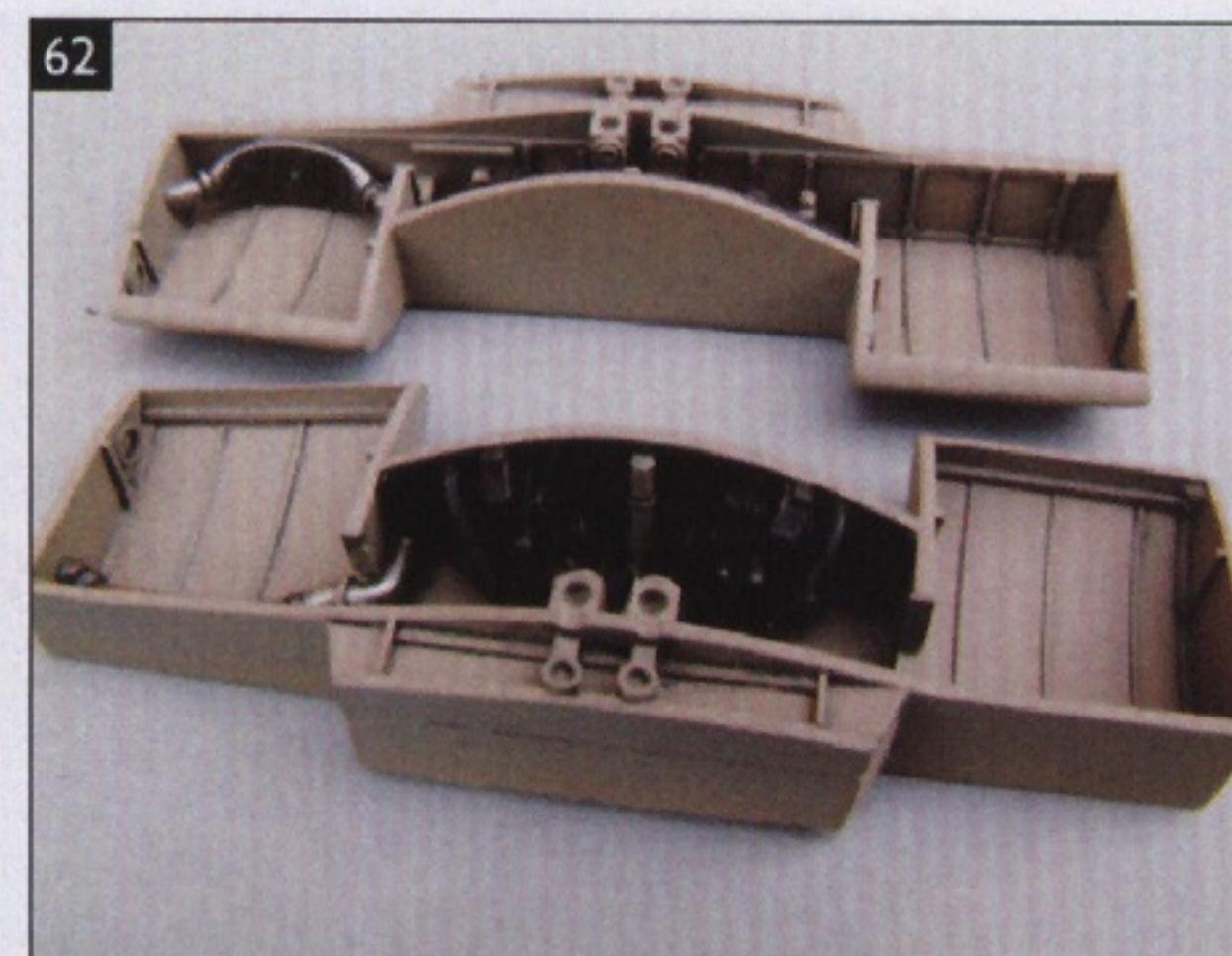
Exhausts and Related Features

Next to Revell's rendering of the tail gun position, the exhaust and air intake system comes a close second in failing to capture the detail of the real aircraft. My solutions are admittedly only 'half baked' but do go some way to addressing the discrepancies. First of all there is the chin intake seen in photo 55. Much can be done to improve the look of the kit part but even with filler to give a slightly more 'bulged' look to the front fairing, it is still the wrong shape, being much too square at the front and tapering back toward the ducting at too severe an angle. Photo 56 gives an idea of the work done but also highlights the next problem, the absence for the shelf through which the exhausts protrude. As you can see the whole area just gently slopes away instead of having a step in it as seen in the

proceeding photographs. This was made using lengths of 1mm square dowel plus filler. Note also how the forwardmost air intake either side of the engine has been deepened, it being longer than the intake behind it (See Photo 57).

Photos 58 & 59 show another addition to the area, namely the pipes found either side of the chin intake. Just how these pipes react to the lower engine covers being dropped down I don't know?

Photos 59 & 60 show the exhaust staining. This was sprayed on using PolyScale Dark Earth to cover both upper and lower surfaces, followed by an application of 50% Dark Earth and 50% black to just the upper surfaces. Please also note when looking at photo 60 that the kit's upper exhausts have been reduced in height! The pipes were first cut off their bases before about 1mm was taken off the lower part of the stem, what was left being reapplied to the base and added to the model. They are still not



completely the right shape but look a lot better than they were.

Photo 61 I hope gives a clear appreciation of much of the work discussed; it certainly shows the shelf for the exhausts very well. You may also see that I have placed my CMK flame dampers with the base near the front contrary to their instructions which I am not completely confident are right in this regard. The Extra Tech brass etch set includes very nice grills for the fronts of flame dampers, but I could not see their presence in any photographs. Please also note that you can see the bare-metal propeller pitch units. I was inclined to just push the kit propellers as far into their spinner slots as they would go but this is quite wrong. I did not do this but these units would look even better if you made their circumference a little wider!

CMK Undercarriage Set

Not for the faint hearted this one! Photo 62 shows the surgery necessary to get the most out of this

set. I put it that way for a very good reason, it is an awful lot of work cutting out, sawing and grinding the large moulding gate off the wheel wells, and trying to get a reasonable fit that will not compromise the fit of the undercarriage! And when you think that out of all the photographs I had in my references only two pictures showed a He 177 parked with the wheel well doors open... is it really worth it? I am glad I did what I did as it looks great on a black undersurface, really helping to break up the camouflage, but if I ever built another He 177 I would seriously consider buying the set just for the wheels! As with the engine parts the wheel wells and undercarriage parts paint up lovely as can be appreciated in photos 63 & 64.

Ailerons and CMK Flaps

Starting with the kit's ailerons, these are the main visible difference in distinguishing an A-3 from an A-5. The alterations are simple really and

only involve in the first place removing the A-5 style trim tabs and filling in all the various points for the balances and external actuators (See Photo 65). Incidentally, if you do make an A-3, those external actuators you have spare will look great on an Italeri or AmTech Ju 88! Photo 66 shows the next stage where new, shorter, trim tabs plus actuators have been added to the lower surfaces. The most time-consuming element of the

conversion was making a 'master' wind vane so as to make a mould and get them all the same. Next up was the fixing of the internal actuators (See Photo 67).

Please note that when the A-3 deployed its flaps the lower half of the ailerons also protruded straight back, being pushed out by the internal actuators just mentioned. If one uses the CMK flap set then the above must be considered. Consequently 'tracks'





Colour Chart

Using the Testors Modeler's Technical Guide and IPMS Color Cross Reference Guide we can cross-reference the colours used in the above build article into the following available paint ranges.

RLM 02 Grau

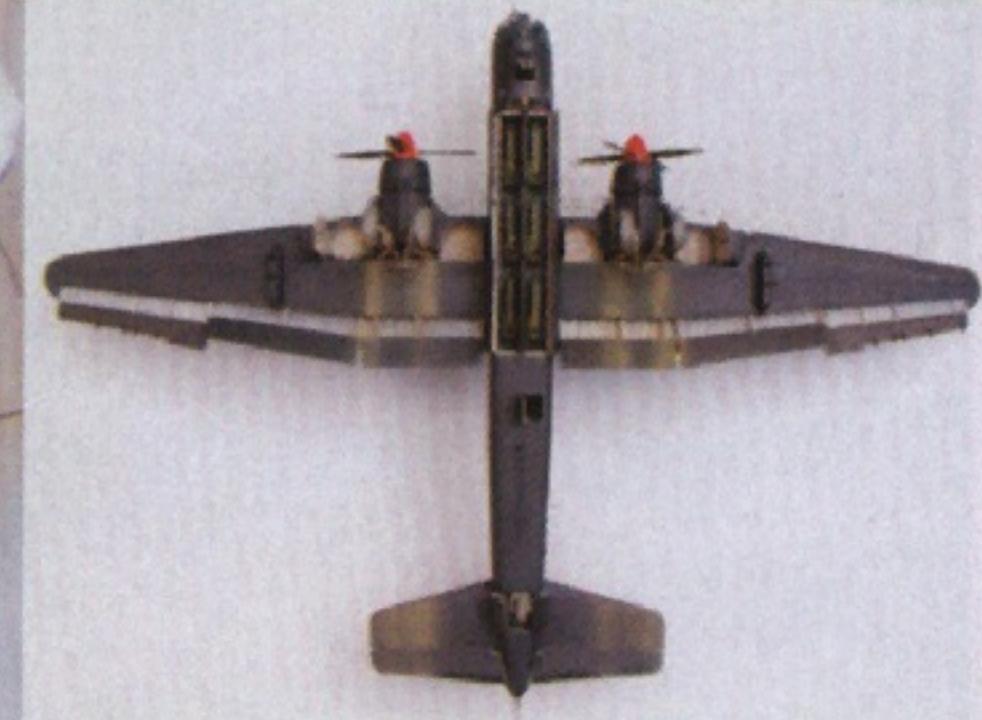
In acrylics this colour equates to AeroMaster 101, Floquil 505075, Gunze Sangyo H70 and Tamiya XF22. In enamel it is AeroMaster 9020, Floquil 303271, Humbrol 92 and Xtracolor X201.

RLM 71 Dunkelgrün

In acrylics this colour equates to AeroMaster 1024, Floquil 505056, Gunze Sangyo H64, Polyscale 500087 and Model Master 50193. In enamels it is AeroMaster 9023, Floquil 303243, Humbrol 114 and Xtracolor X205.

RLM 76 Lichtblau

In acrylics this colour equates to AeroMaster 1027, Floquil 505061 and Polyscale 500088. In enamel it is AeroMaster 9027, Floquil 303251, Humbrol 175 and Xtracolor X208.



must be scribed into the upper surface of the lower aileron half. These tracks lie in direct relation to the line of the wind vanes and appear in photographs to be very dark! The above work can be appreciated in photos 70 & 71. Photo 70 also shows how the pitot tube has been replaced by guitar string and that the 'broad' white upper wing crosses supplied by both Revell and Eagle Strike have been discarded in favour of 'thin' style black crosses as per photographs.

There is not much really to say about the CMK flaps seen in photos 70 & 71 other than that the finished result is very pleasing. Again be warned that the rib detail on the flap ceiling parts is very fragile; in fact some of the ribs of my set were lost before I even got them out of the packet! Also be aware that to get a realistic wing trailing edge you will need to scrape away as much plastic and resin as you dare to achieve a suitably thin edge.

Painting

In case you were wondering, after the coat of Halfords Primer was applied and dry, it was cut back with Micro Mesh to remove any primer 'dust'. Polyscale RLM 76 Light Grey acrylic was applied and then mottled with Xtracolor RLM 71 Dark Green enamel. Enamel is far easier to mottle with in my opinion as you have a longer working time before the paint has dried up in the needle aperture. After masking, Polyscale RLM 22 black acrylic was applied. The whole aircraft was given a few coats of Polyscale gloss for the decals and then finally a few coats of Polyscale Flat (both again in acrylic).

Conclusion

Well an awful lot of work has left me with a rather large and 'busy' looking model that I am very pleased with. Even without all the fancy after market products that went into giving my model that 'busy' look, it just goes to show that some of these modern

kits can still need a lot of work done to them. As I have said you get an awful lot of kit for very little money so it would be unwise to be too unhappy with Revell about their fuselage spine, tail gun position and lack of exhaust shelves. What you buy in the way of aftermarket products is up to you, but to sum up: there are serious accuracy problems with the second Eagle Strike decal sheet (and I think with part one as well), a small number of fit and accuracy problems with the various CMK sets, you will never see half the Extra Tech brass items again but what you do see is very welcome, and you cannot afford to not purchase the excellent Falcon parts if you want to make a realistic He 177. I hope this has been more helpful than boring, I am sure I have got loads wrong, but it is such an interesting model to have completed and sat on your shelf that if you are interested in the vast diversity of Luftwaffe camouflage schemes look no further than Revell's He 177 and

the real aircraft, whose wide ranging camouflage patterns are a study all on their own! Happy Modelling.

John McMillan

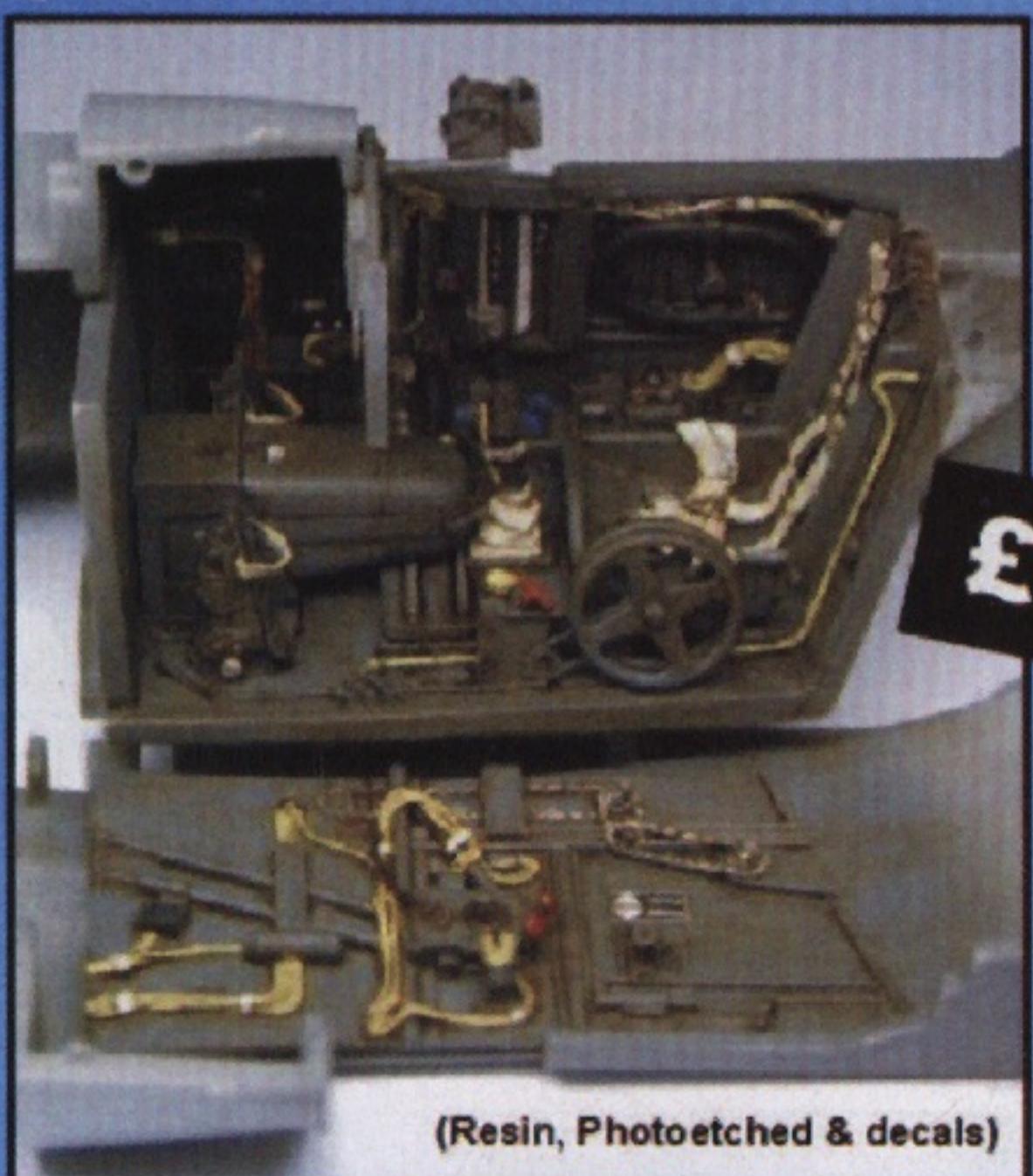
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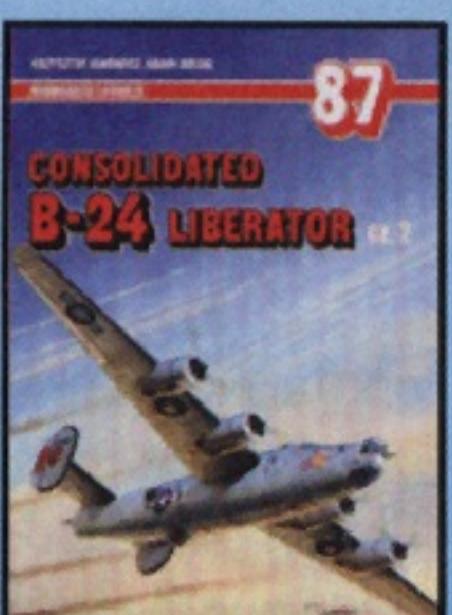
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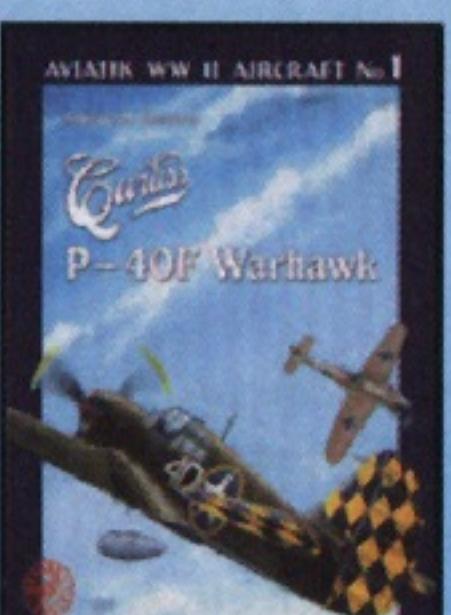
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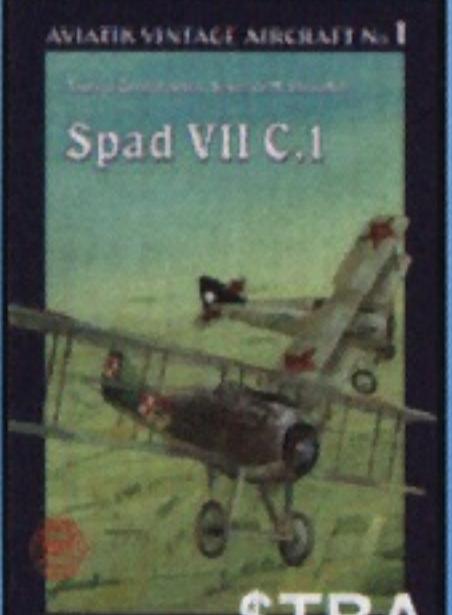
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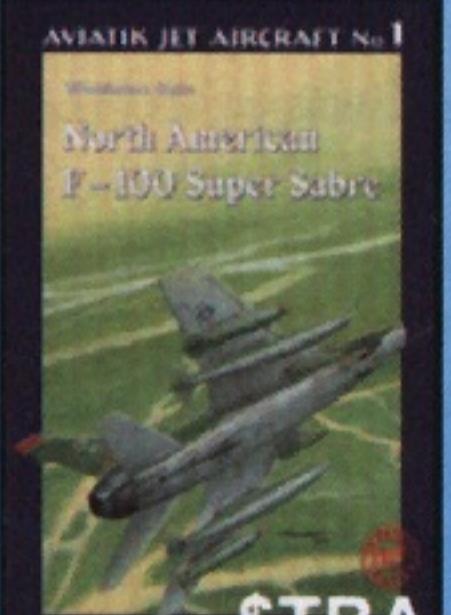
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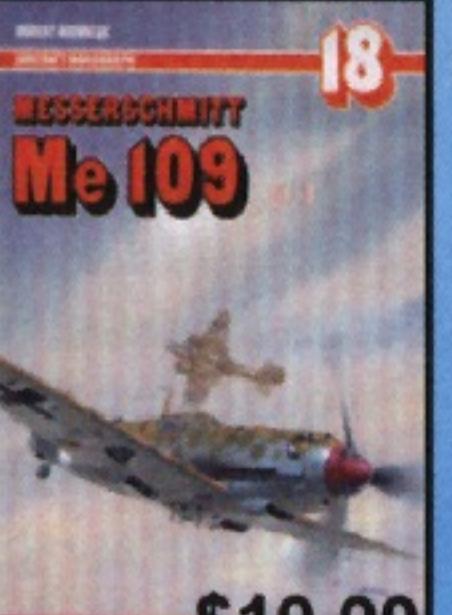
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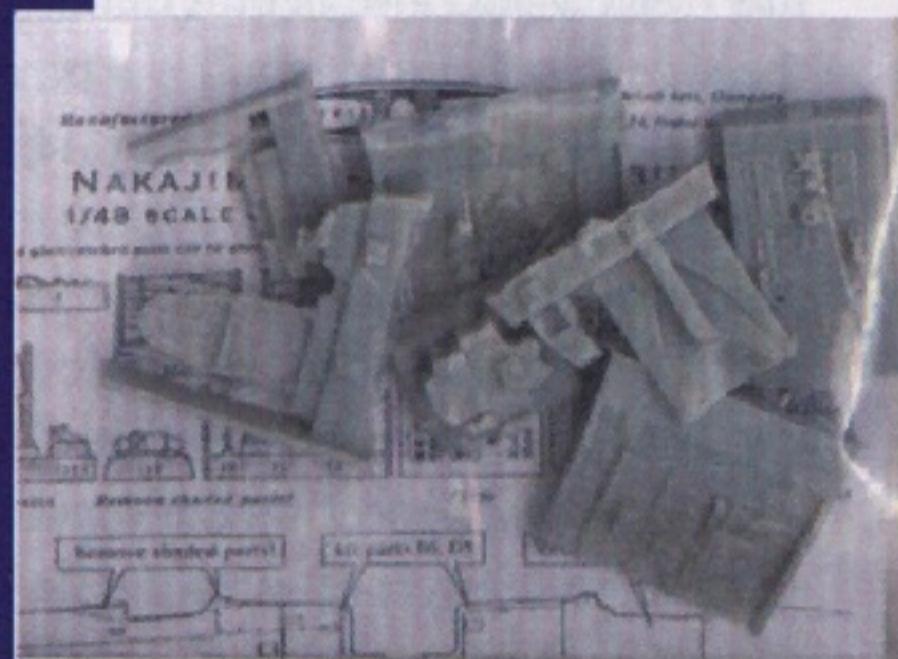
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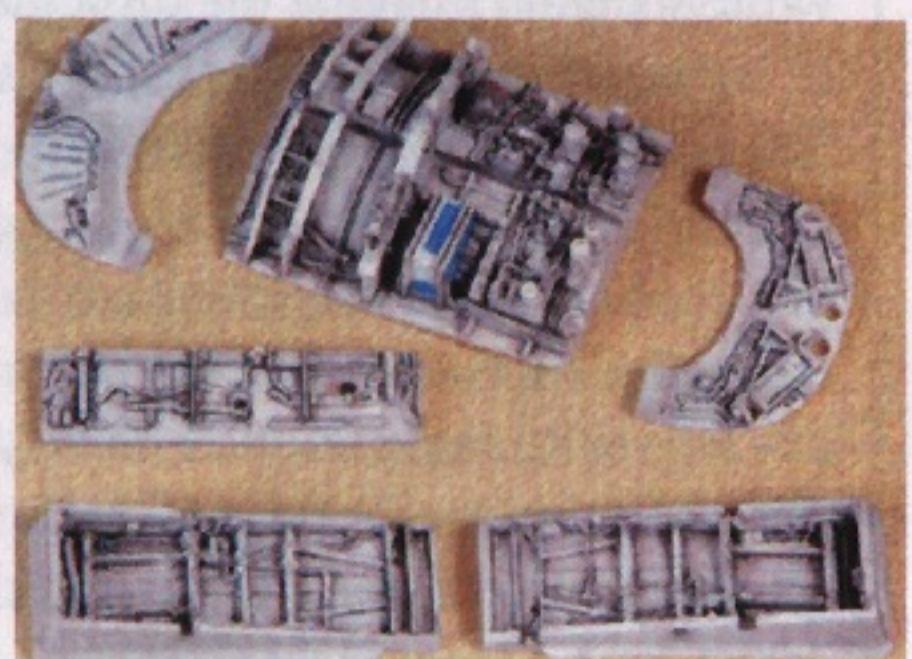
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Trainer built for Two

by Frank T. Cuden

Picture, if you will, a US Naval Air Station for a moment. Let's get more specific: How about Whiting Field in Florida which is close to NAS Pensacola? Standard navy colour for training aircraft at the time, was the red/orange and white scheme. Imagine the difficulty of trying to individually identify over 500 of those training aircraft! An attempt to solve the problem involved changing the scheme - naturally. Two new schemes were offered for consideration: 'Prototype A', and Prototype 'B'. When Czech Model released their 1/48th scale kit of the Turbo Mentor, I wondered about a scheme. At that point, enter a friend of mine with a colour copy of the 'Prototype A' scheme. Subsequent conversations with him and more resource revealed colour photos of both schemes. I would opt for 'Prototype A.' I don't know why other than the fact that 'Prototype A' offered a more pleasing look to me.

Construction

Getting started with the project, I

filled in the wheel well walls (there's that phrase again!) with sheet plastic. In Photo 1 I've glued in the plastic and done the initial trimming. A little putty and a light sanding faired everything together. The port fuselage half has had its coat of Floquil Primer in Photo 2 and I've begun detailing the sidewall. Several small warning placards have been added, and faintly visible above the cockpit sill are the two homemade throttle quadrants that I fashioned from plastic stock. As the quadrants were tilted inward, I've added two small sections of plastic stock to the moulded-on throttle quadrants offered in the Czech Model kit. Those would serve as spacers to make the quadrants tilt inward, as I wanted them to. In Photo 3 I've glued in the quadrants. The object immediately behind the fuselage half is my faithful sandstone knife blade sharpener. I don't know about you, but the No.11 X-acto blades' life can be extended a great deal by continually sharpening them on the stone. A little water and a gentle rub on both sides of the blades after

about four usages will make them last a lot longer. Moving on, it was at this point that I separated the resin cockpit interior from its backing with the use of my jeweller's saw and that is visible in Photo 4. Notice the amount of resin dust I was able to 'kick up' with that chore. Everything's been cleaned up in Photo 5 and I've begun the detail painting. Although I'm quite sure the interiors were grey, a little highlighting here and there helped increase the variety of cockpit colours. The resin seats are shown in Photo 6. I added the little inverted 'U' shaped pieces behind each seat using stretched sprue. That detail was visible in one of my reference shots. I also added the tiny red warning placard that is visible on the left as viewed, and the black/white instructional placard between the shoulder straps. Using a product called 'The Detailer', I very gently and lightly added the tiny brown dots on the upper parts of the shoulder straps. The seats were painted Dark Gull Grey. I also used black 'The Detailer' to accent the engraved lines

on the seat backs. I would leave them off until the model was almost done. Philosophically, I don't like to add things until absolutely necessary, thereby minimising potential accidents. Keeping the seats out until much later also made it easier to mask the cockpit during the painting process. I've started work on the instrument panels in Photo 7. I used 'Instrument Panel Black' and in the photo, having painted the instrument depressions white, I'm adding the individual instruments using Reheat's decal instruments. Although a bit labour-intensive, the end result coupled with a coating of clear brings the panels to life. Continuation of cockpit assembly is visible in Photo 8. I set the seats in place strictly for photographic purposes. Also note the brass Reheat rudder pedals I've installed over the floor plinths provided in the kit. Several switches and buttons are in place, having used stretched sprue of varying diameters. The kit-provided control sticks have also been glued in place. With placards in place and details painted,

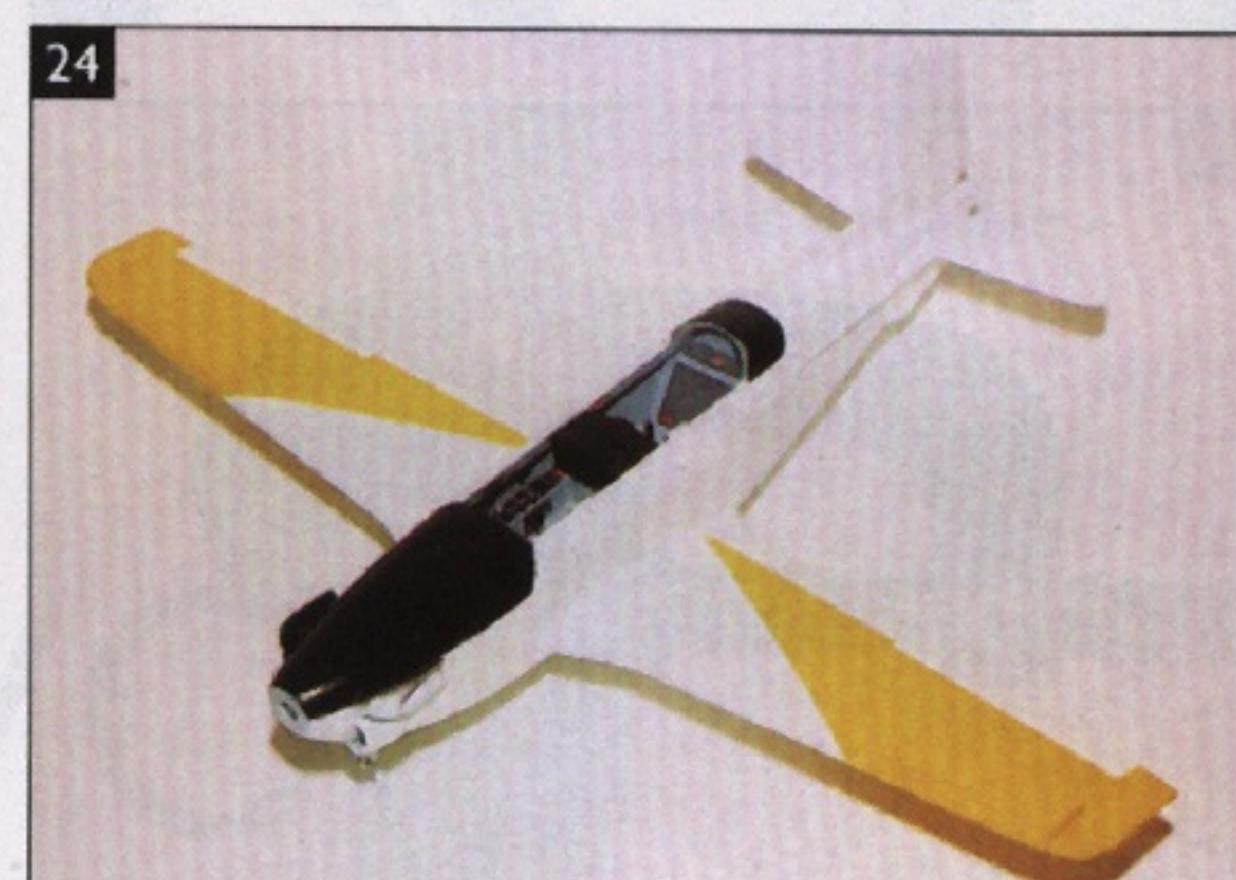
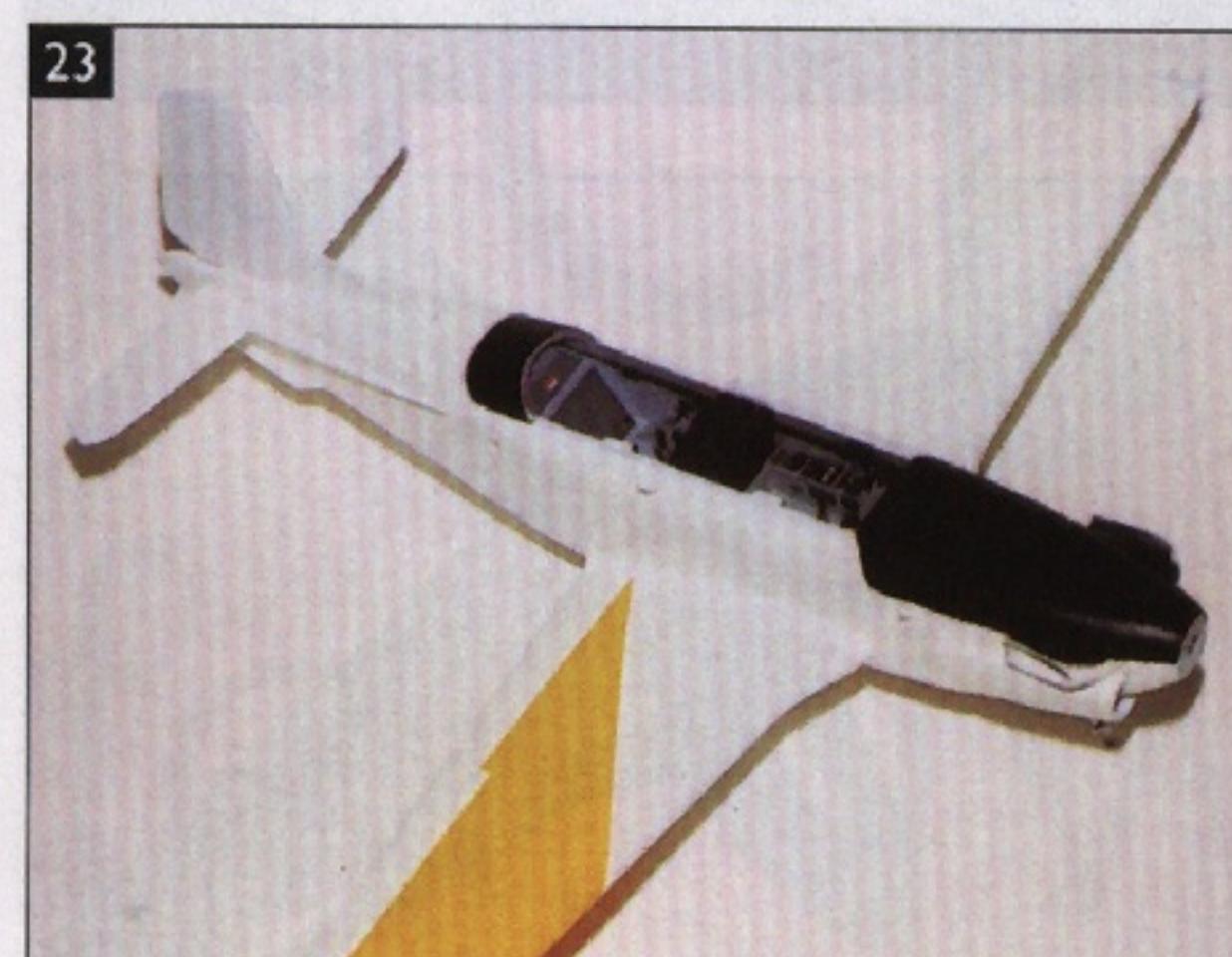
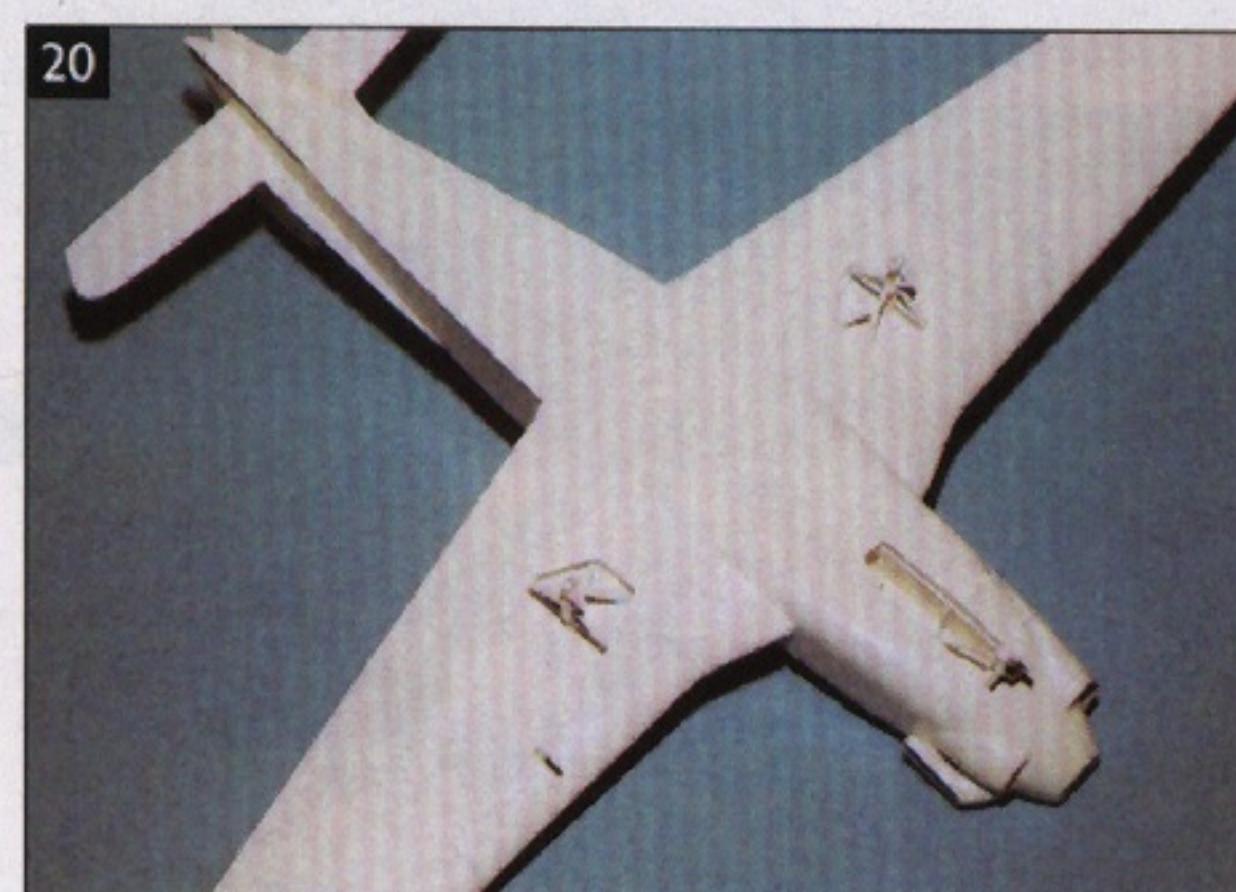
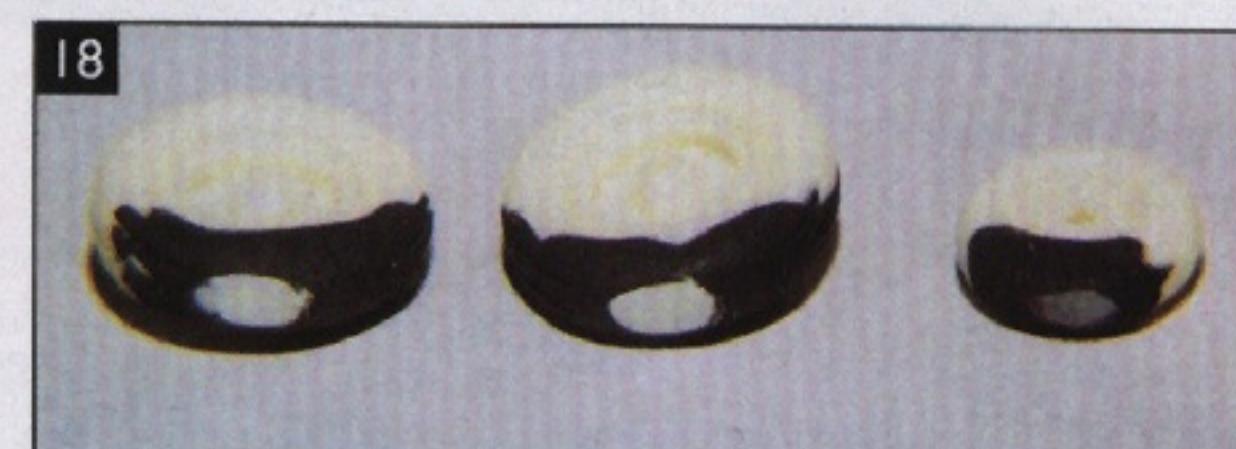
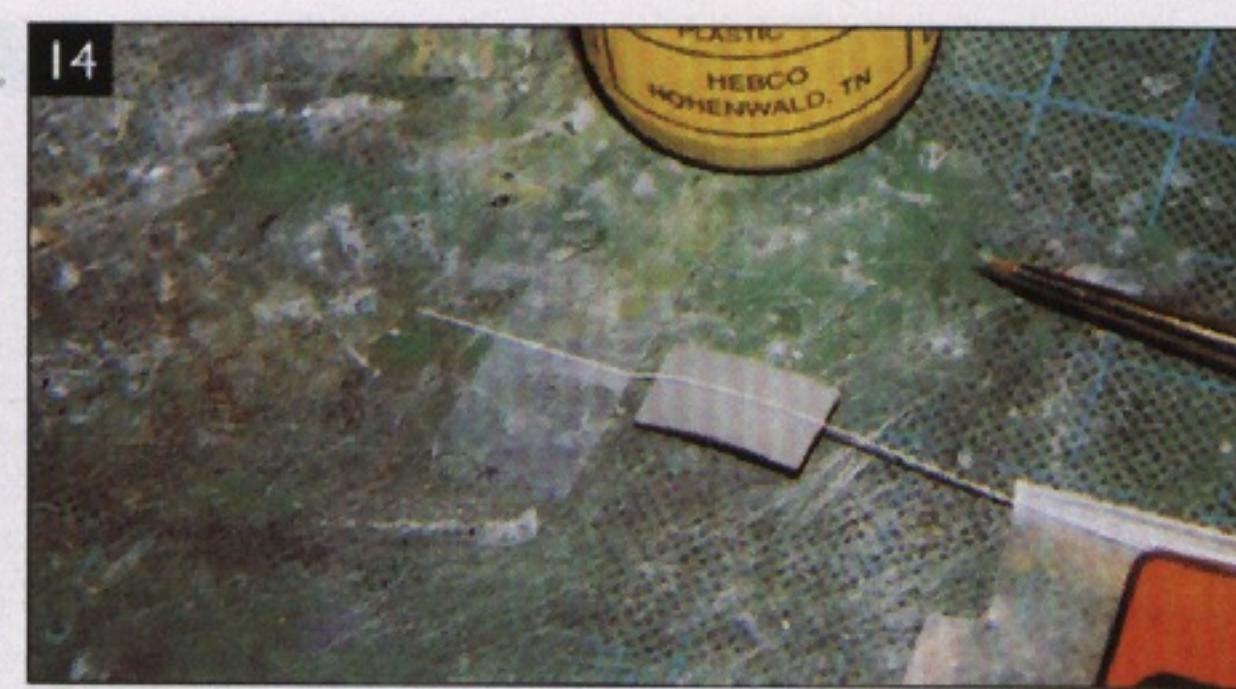
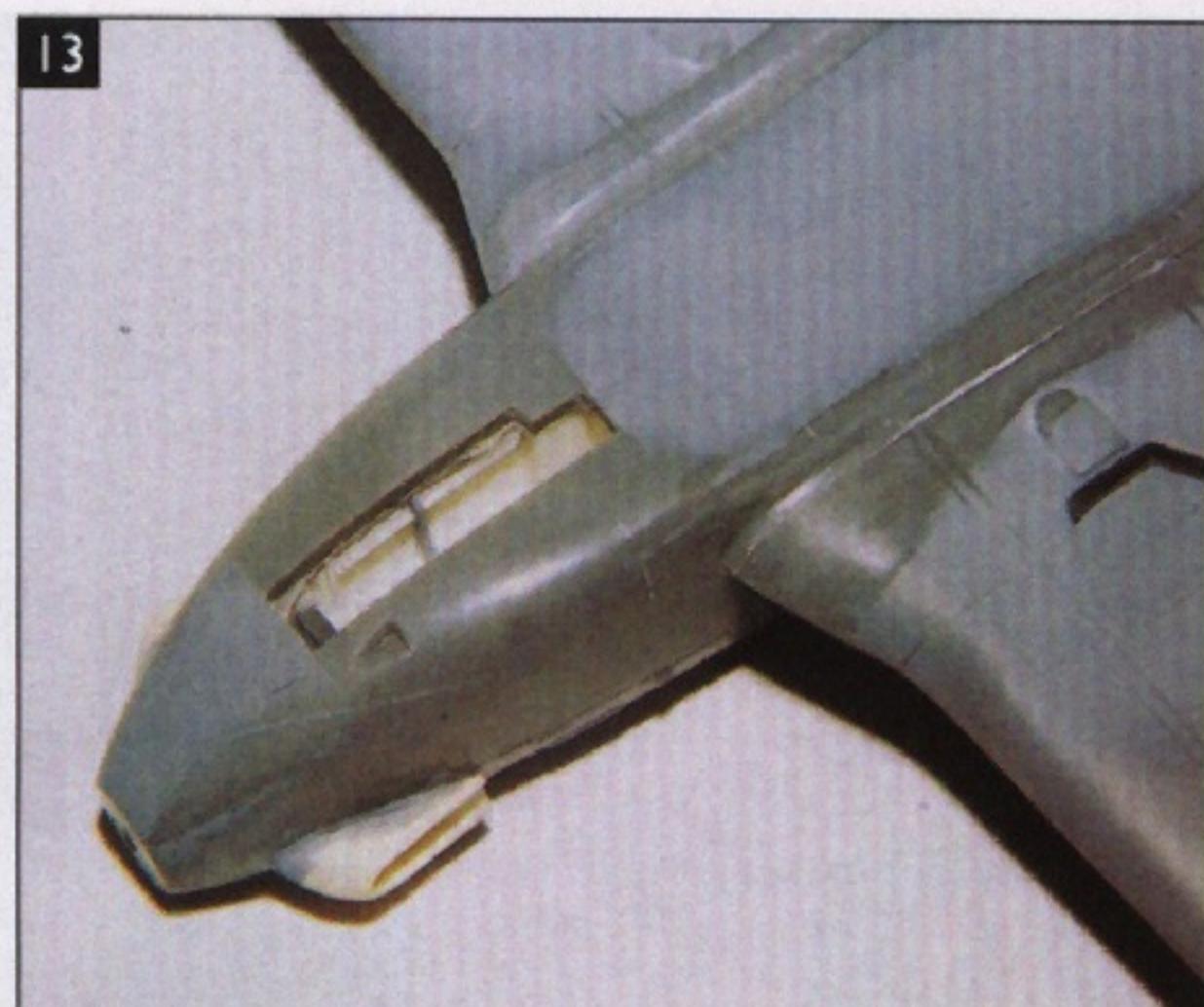


I glued the entire assembly to the port fuselage half (See Photo 9). In Photo 10, I'm gluing the fuselage halves together. As there was some warpage the 'G' clamp came in handy. I waited until the rear section was dry and then moved the clamp forward and glued that section together. Notice that the seats have been removed. Czech Model provides a very nice nose wheel well and it is visible in Photo 11, the underside shot. The wings are also in place and finished at this juncture. A bit of filling and sanding was needed, not only at the wing joint, but also along the fuselage underside. A closer look will reveal that I had already glued in the vertical tail, that's what the rear fuselage is resting on, however in Photo 12 the horizontal tail is in place and the vertical piece is missing! I opted to remove the vertical tail, as it was much easier to sand the stabiliser-to-fuselage joints with that piece removed. That, plus the fact that it was far easier to correctly line up the vertical tail after the horizontal stabilisers were in

place. Live and learn, I guess... A better close-up of the nose wheel well is visible in Photo 13. Also note the addition of the resin exhaust fairings. In Photo 14, the decking between the front and rear cockpits is getting extra detail. In photos, the deck has a small divider going across it and I'm adding that from Plastruct small-diameter plastic rod. Later on, each side of the rod had four perpendicular short rod pieces added. They are very difficult to see due to everything being black. Photo 15 shows the model almost ready for paint. I've added two thin sheet plastic strips along the cockpit edges. They were to simulate the tracks for the sliding sections of the canopy. Also note the small 'wing fences' at the outer edge of each wing. As the T-34C Turbo Mentor was equipped with wing strobe lights, those fences were incorporated to keep the glare of the flashing from the pilot's eyes. The kit wheels are visible in Photo 16. I was very surprised to see the amount of 'flatness' as they came in the kit. In their defence, the detail

moulded on the wheels themselves was quite good. What to do? Although it's rather dark, in Photo 17, I've added Milliput, trying to form the wheel to a more circular pattern. I was very careful not to obliterate the nice tread detail in the surrounding areas, and in Photo 18, one can see the difference in flatness I achieved with the Milliput. In Photo 19 the model is resting on its landing gear. Note the small circular opening where the propeller would be mounted. After filling the nose area with buckshot, I found I had not added enough and the model, at that point, was a tail-sitter. That would not do! So I drilled a large hole in the front, knowing full well that the propeller spinner would cover the area upon completion. Through that hole, I began adding tiny bits of lead from a flattened fishing sinker. I simply smacked the sinker with a hammer until it was quite thin. I then cut up small sections and dropped them in the hole, accompanied by superglue. That addition gave the model a three-

point stance — and not on its tail! It is at this point that I must warn the reader that the photos will become a lot brighter as we move along due to the paint scheme as it's added. Photos 20 & 21 show the model having been painted with Floquil Reefer White. I normally use Testor's Enamel White or Testor's Model Master White, but in this case I decided to use Reefer White which went on quite well. With Floquil thinned with lacquer thinner, it's always one coat, which can be handled within 15 minutes. I would recommend a white cotton glove however. Any grime or finger oil doesn't take long to manifest itself on the finish. Several times, I had to sand with 12,000 grit wet 'n dry paper to remove grime and general crud that built up from handling, even with a white cotton glove being worn. In Photo 22 I've masked and sprayed the anti-glare panel immediately in front of the forward cockpit and behind the rear cockpit. The additional tape on the wings was insurance so there would be no



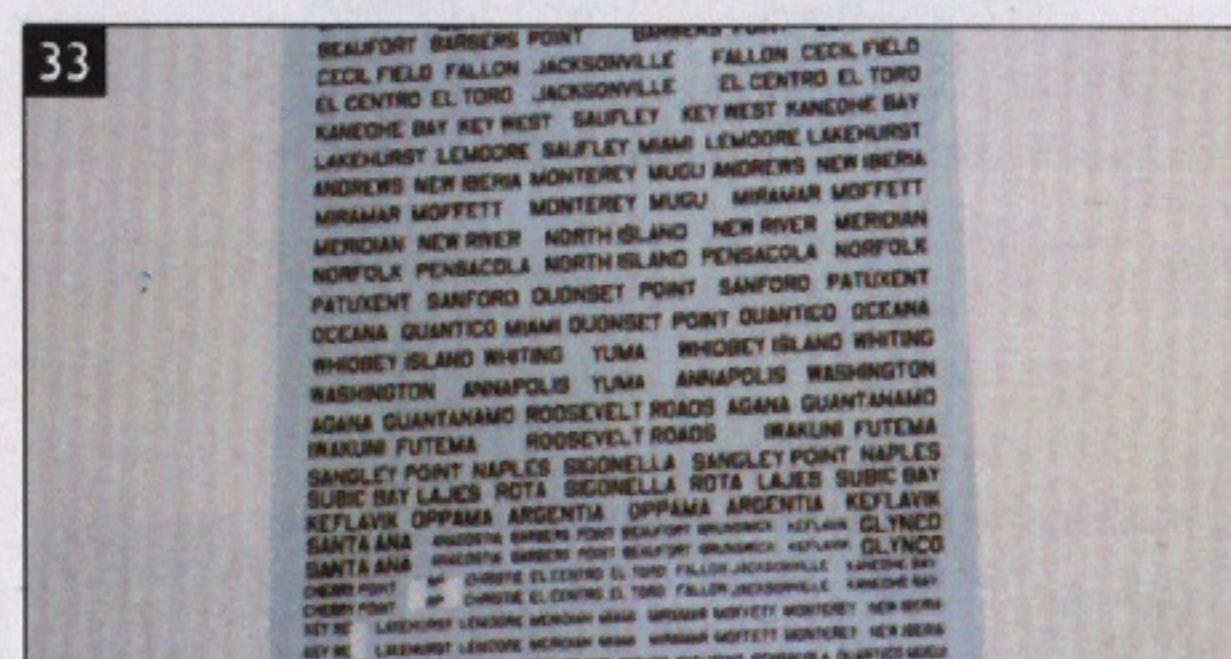
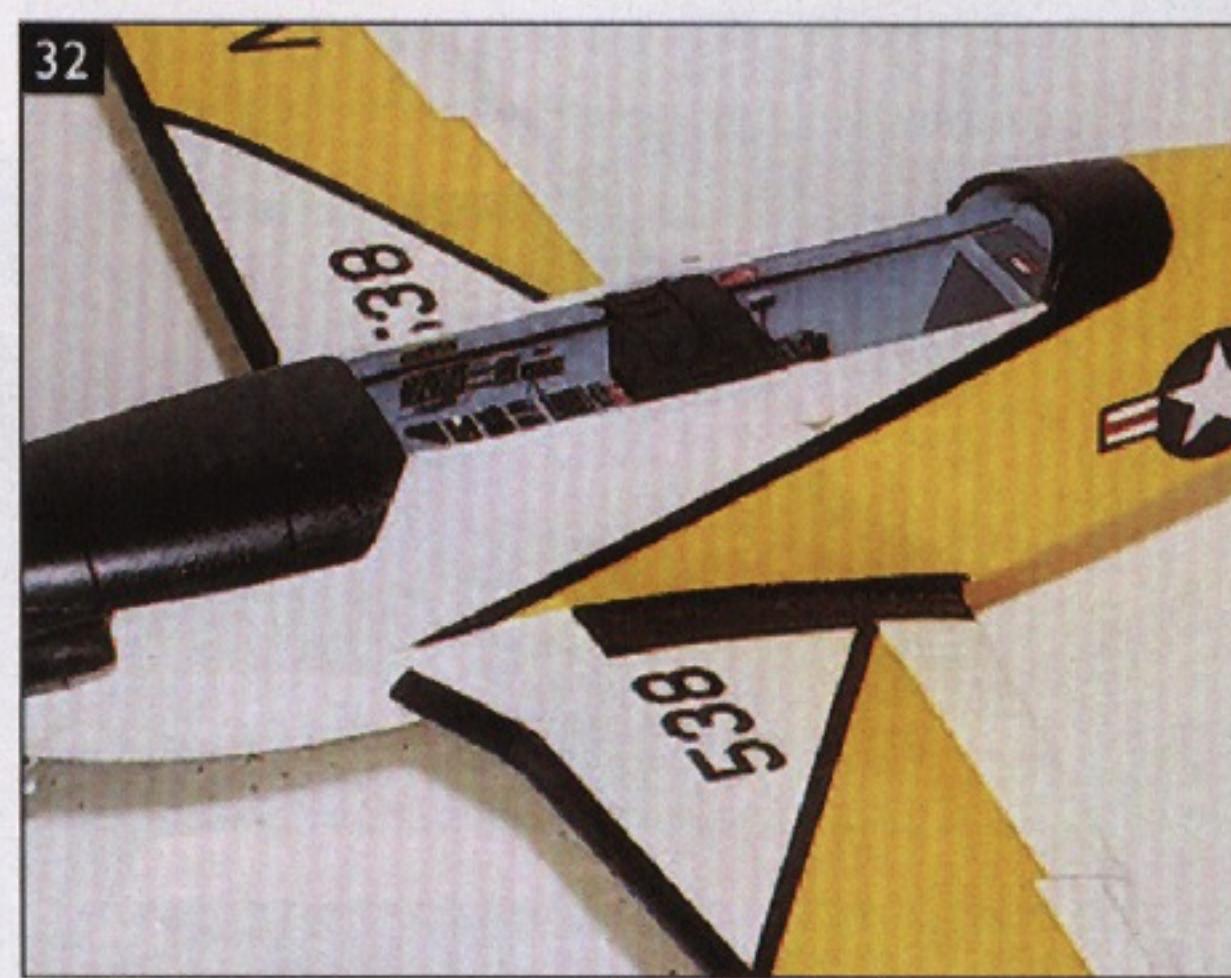
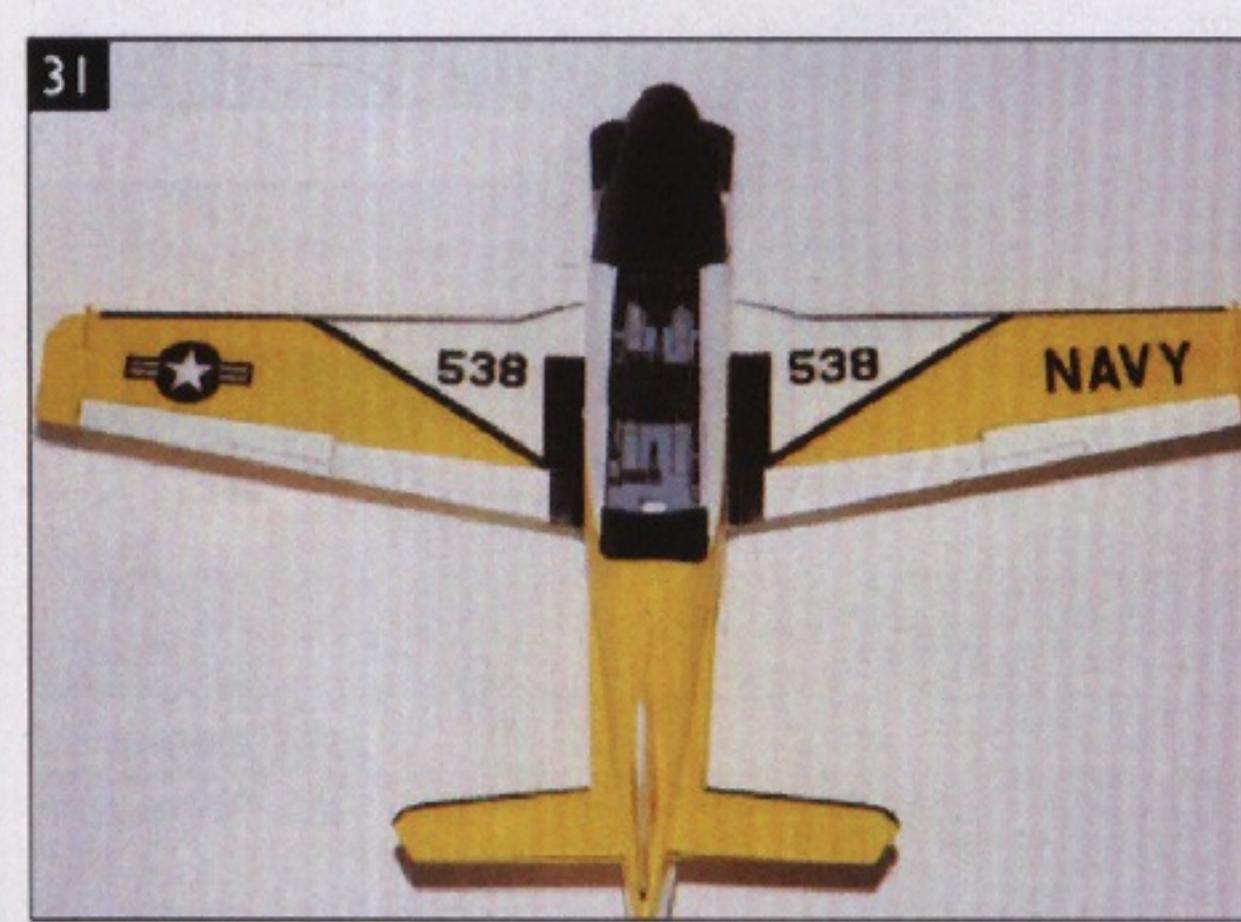
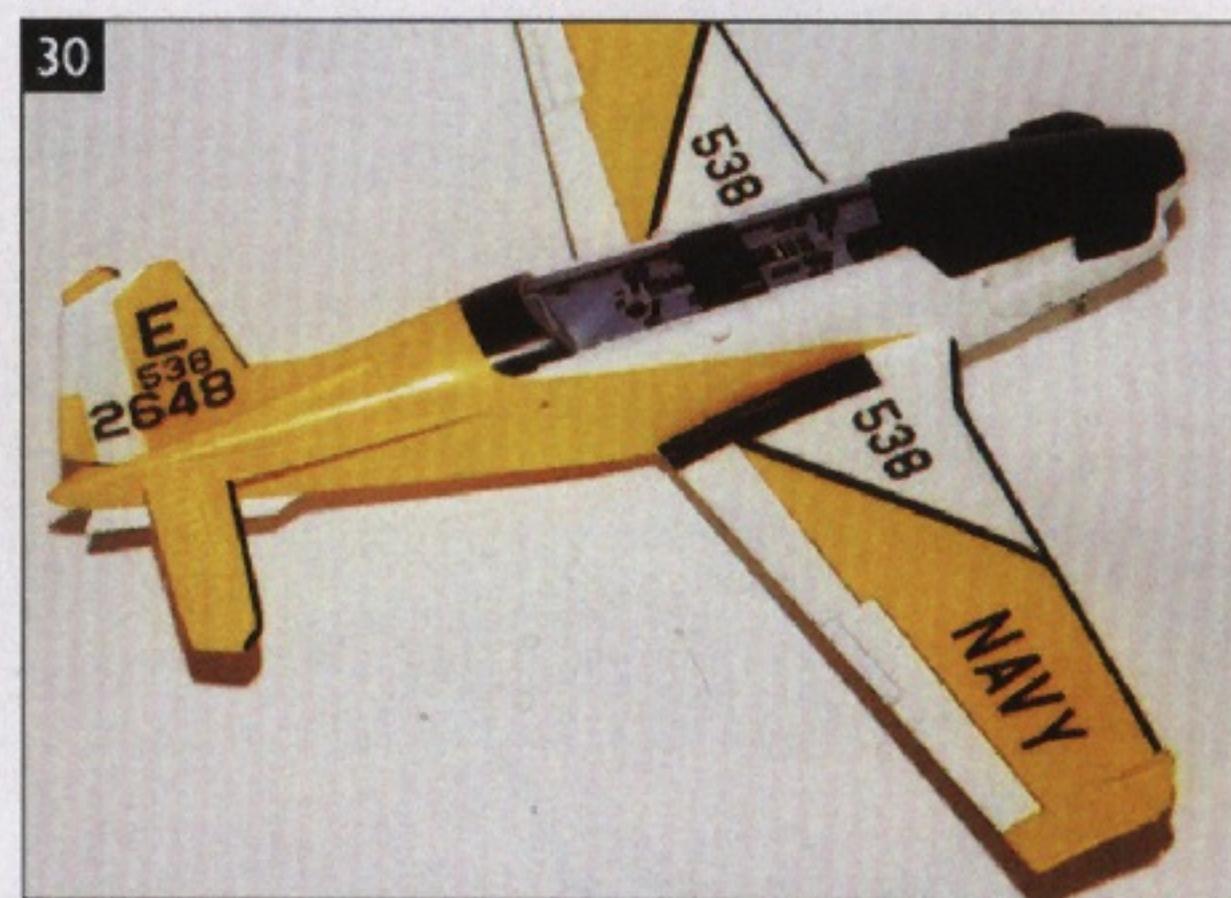
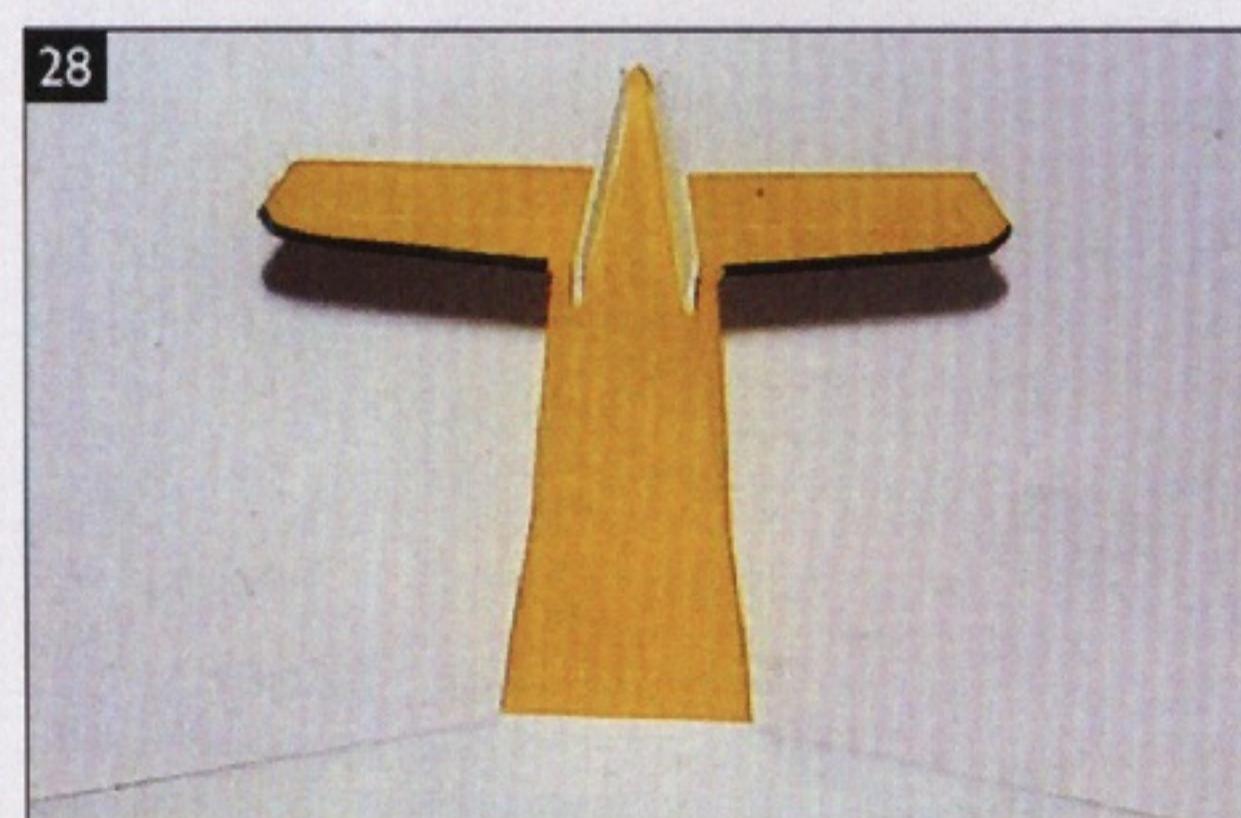
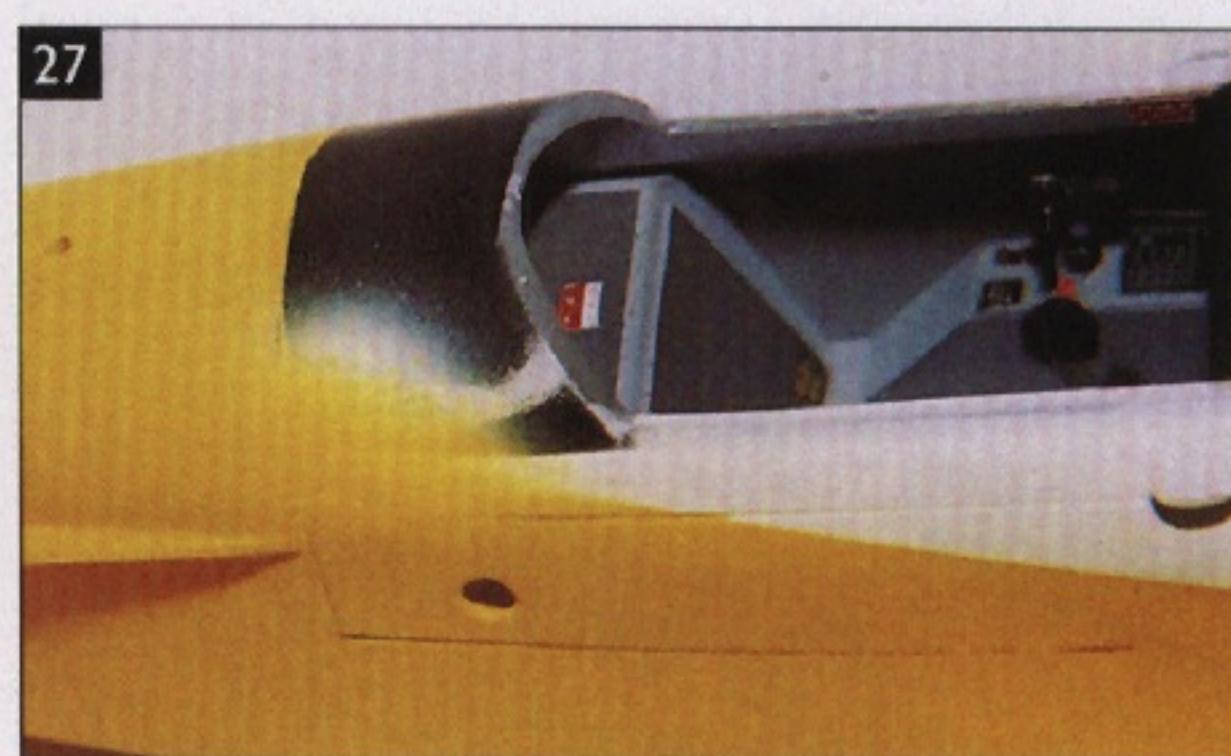
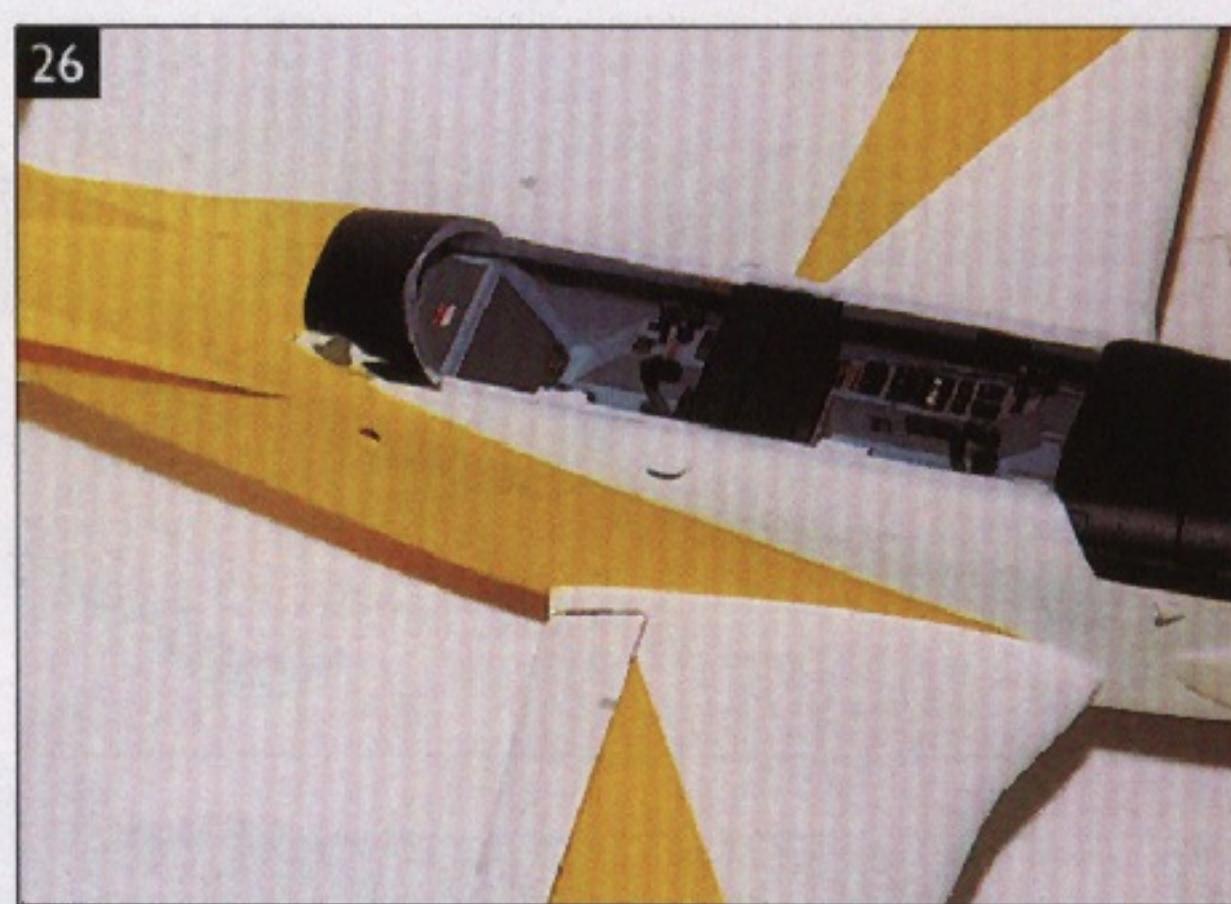
overspray onto the wings. In Photo 23 I've begun adding the yellow, completing the design on both the upper and lower starboard wing. I used Floquil Reefer Yellow and with the white undercoating, there was no need for a marathon spray session. I masked off the ailerons and flaps as they would be left in white as per the 'Prototype A' scheme. Getting brighter still, I've completed the port wing design in Photo 24, and in Photo 25, the scheme is complete. The 'Prototype B' scheme differed in that the nose below the anti-glare panel was yellow and the rear fuselage was yellow only to the rear cockpit. With the 'Prototype A' scheme, one can see now the yellow angles forward along the lower fuselage. As luck would have it, I misjudged the proper angles with one side coming up too high and back, so a re-spray job was in order. Photo 26 shows my sanding efforts right at the confluence of the yellow, white, and black. It's always at a highly visible confluence, never in some obscure place! I sanded to

eliminate any traces of paint build-up at that juncture. The yellow has been re-sprayed in Photo 27. From there, I had to mask off the yellow, re-spray the white and then re-mask and spray the anti-glare panel. All that was done over a period of days to ensure the frustration level would continue to be maintainable. To the right of the photo, one can see the semi-gloss black throttle handle I added from sprue as well as the throttle lever and some of the various switches as well as the trim wheel in the rear cockpit. The completed undersides painting (or so I thought!) is shown in Photo 28. As a hedge to future possible tail-sitting problems, I cut small squares and rectangles from the fishing sinker I had flattened and added them to the nose wheel well. They can be seen in the photo. Also note that the ventral fins are finished in white. To say there was considerable masking on this model would be an understatement! One of the black wing leading edge de-icer boots had also been added to the port wing. In

Photo 29 the stabiliser and fin leading edges have been masked and painted black to represent those de-icer boots. The resin exhausts were painted in Burnt Iron. I had tried experimenting by painting them black with a thinned overcoat of Tamiya Clear Blue, but I wasn't satisfied with the result. I can highly recommend the Testor's Model Master Burnt Iron colour because, depending on light conditions, a blue cast can be seen at times. Just what I was looking for!

A radical change to the appearance of the model is evident in Photo 30. Yes, the decaling process has been started. I found all the numbers, letters etc. I needed in the bags of spare decals I have. Note the black separation stripes between the colours on the wings. They came from ScaleMaster stripes. One nice thing about the width of the stripe is that allowances can be made should there have been an error in the exact positioning of the colours as per the prototype. Solid colour black decal sheeting yielded the wing walks and

that eliminated the need for additional masking. In Photo 31 one can see a good topside view. I find that I'm taking more time during decaling, thus insuring proper alignment of all the individual decals. To me there is no greater error than to have mis-positioned a decal, much less having one not exactly straight. The black edging has been added to the fuselage in Photo 32. One can notice how it tapers to a point as it meets the leading edge of the wing. Additional work would be necessary in that area. Next up was procuring black lettering decals of the proper size for the words, 'Prototype - A' which would be displayed on the fuselage ventral fins. Having measured the width of the fin, I came up with a MicroScale sheet that would fit the bill. Some time ago, MicroScale produced a sheet of Naval Air Station names and that sheet is shown in Photo 33. Using the most obscure names I could find, reasoning that I probably would never build a model representative of such Naval Air

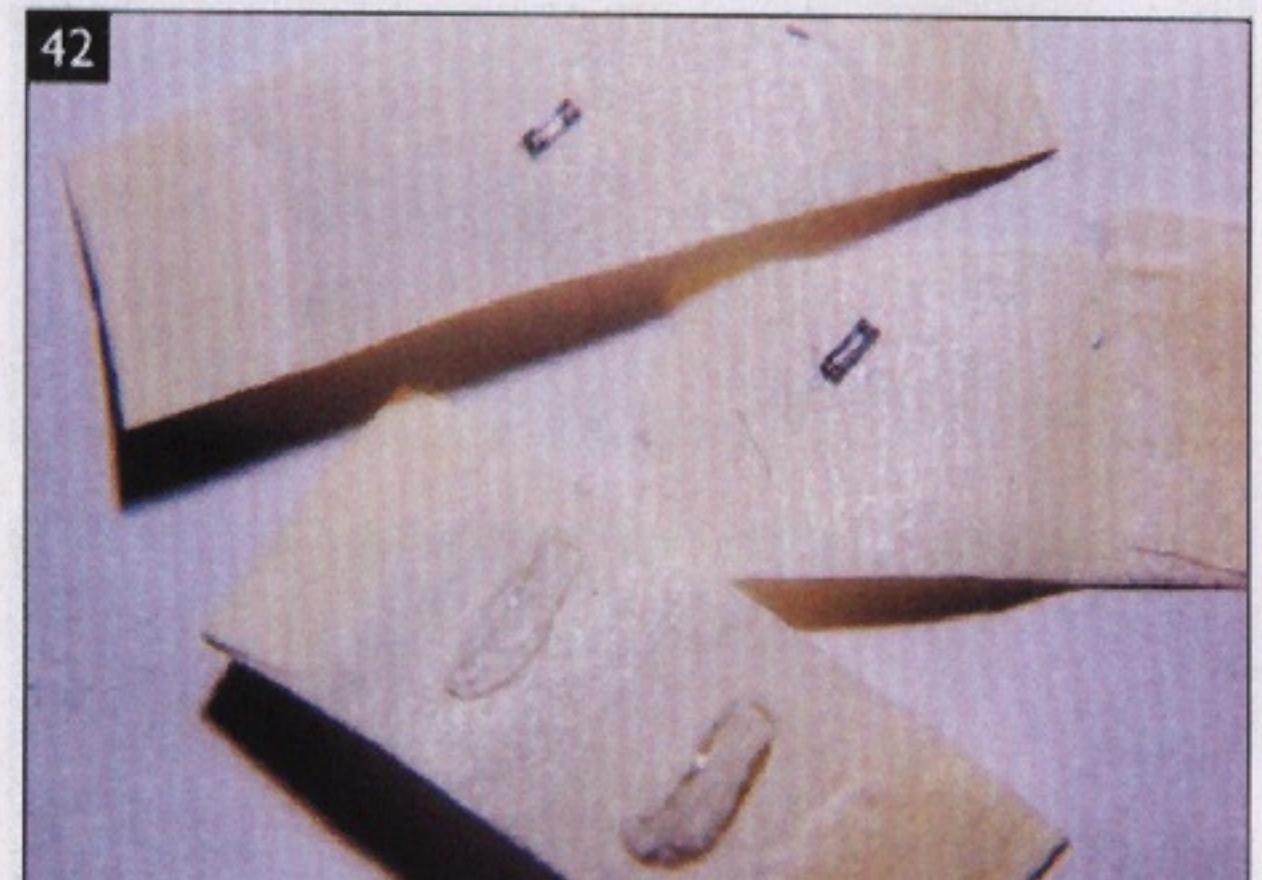
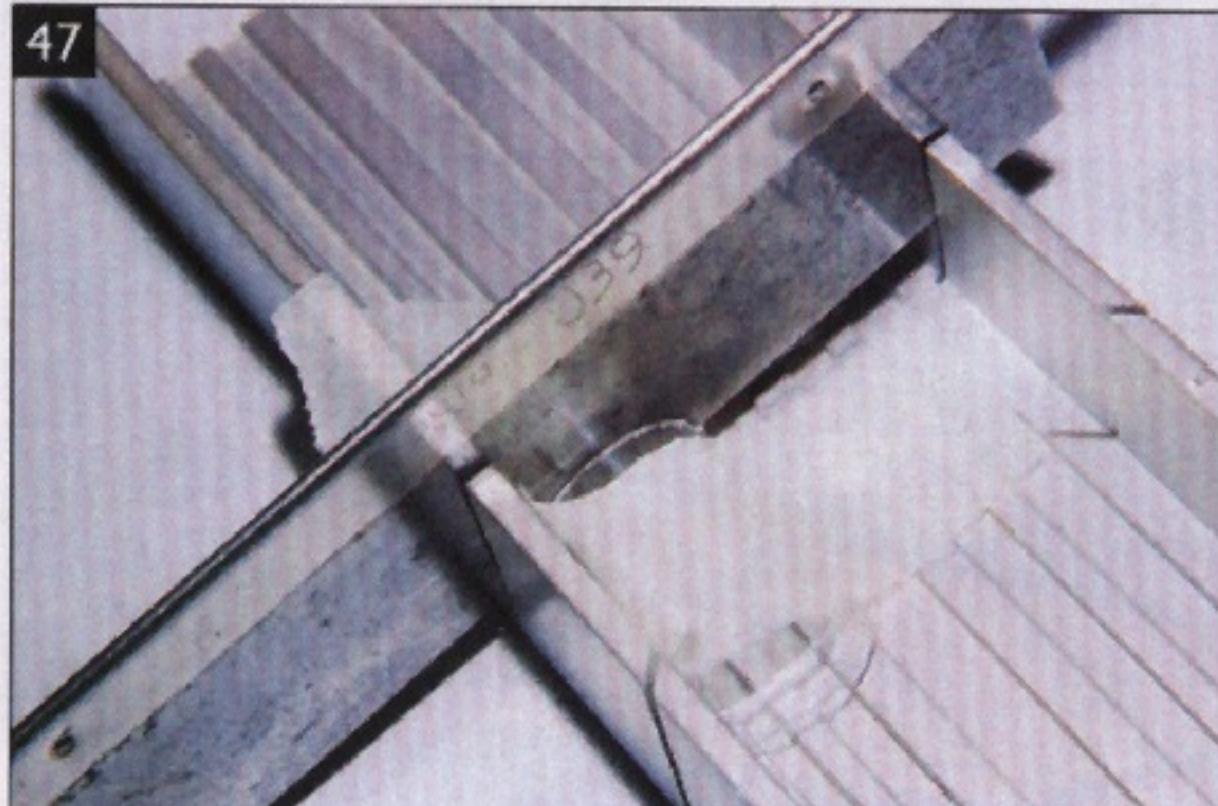
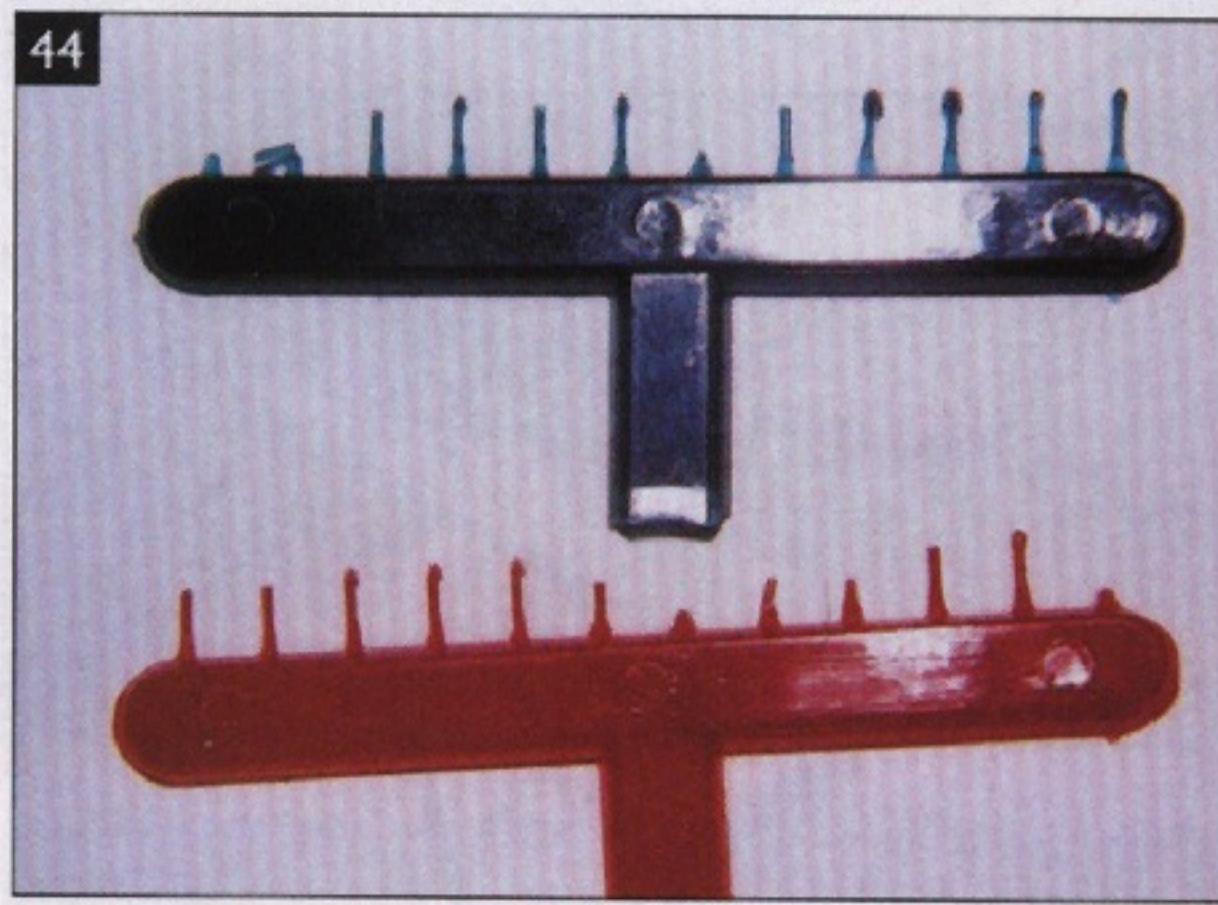
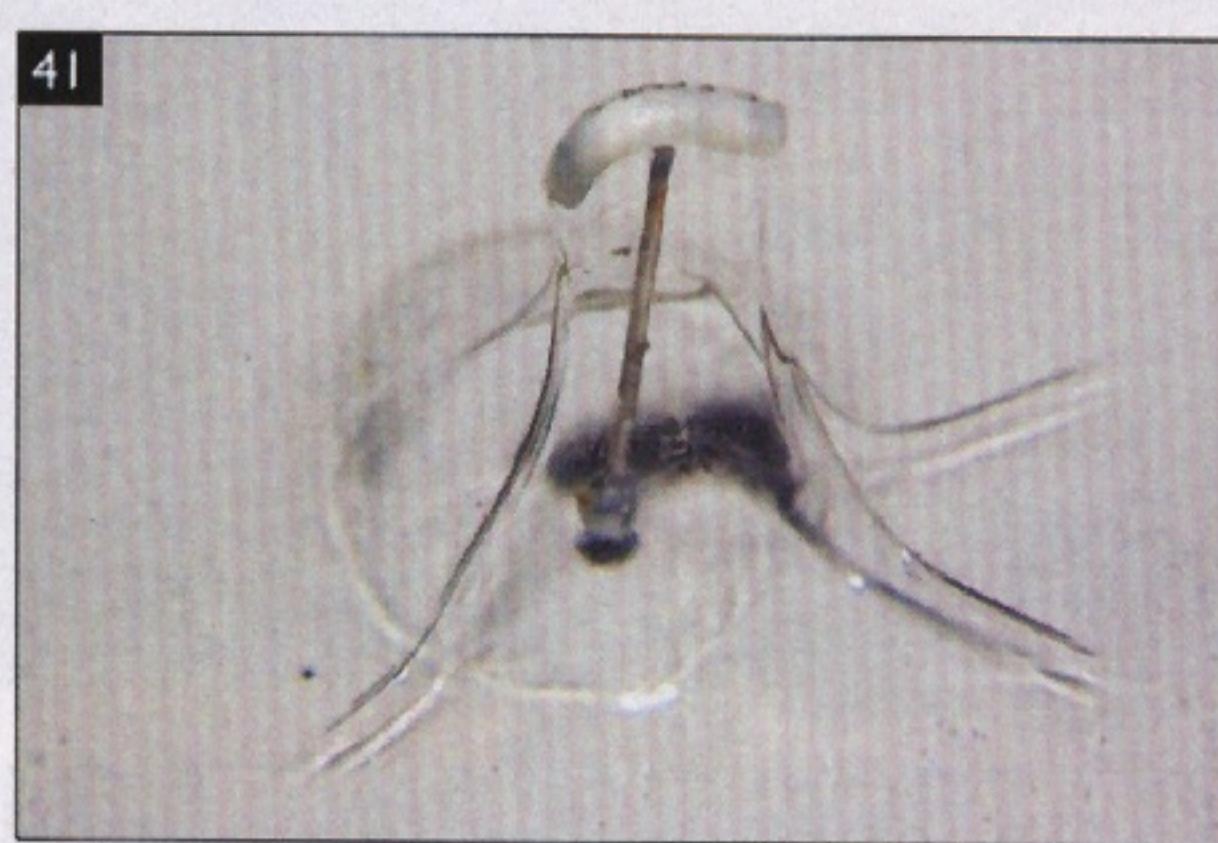
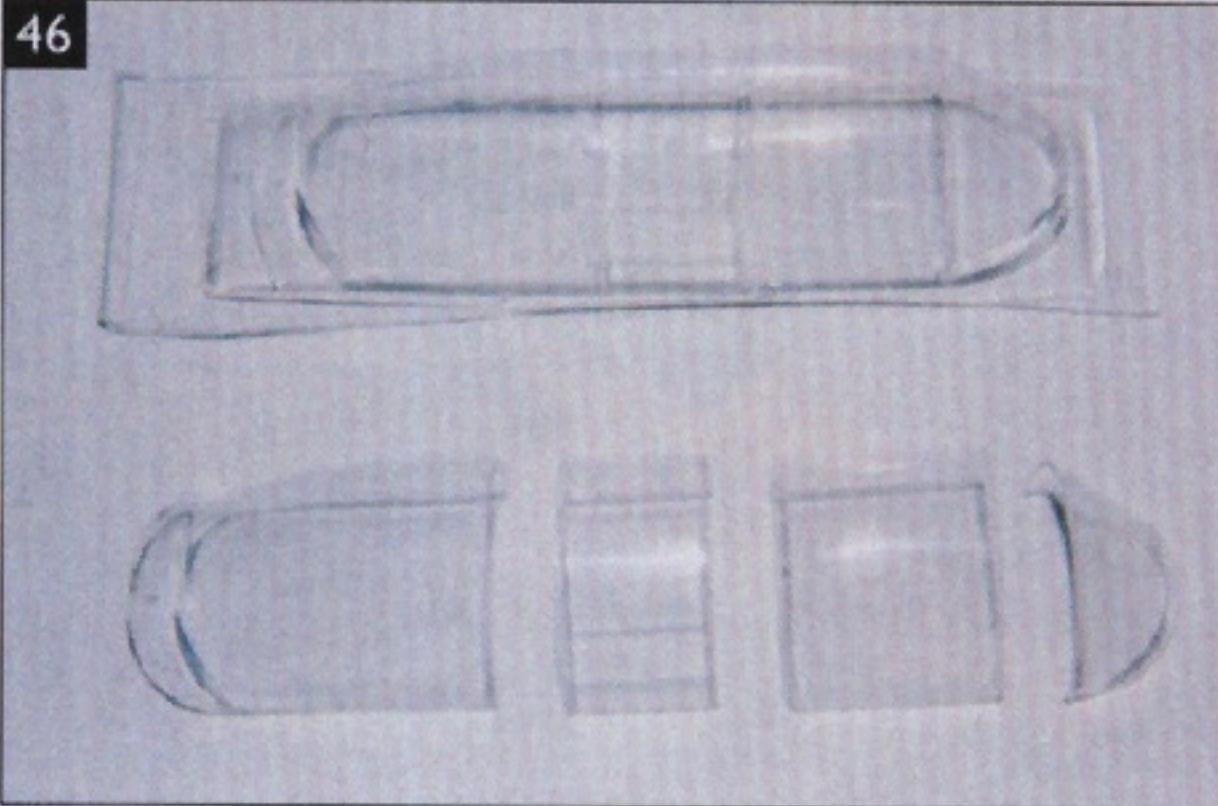
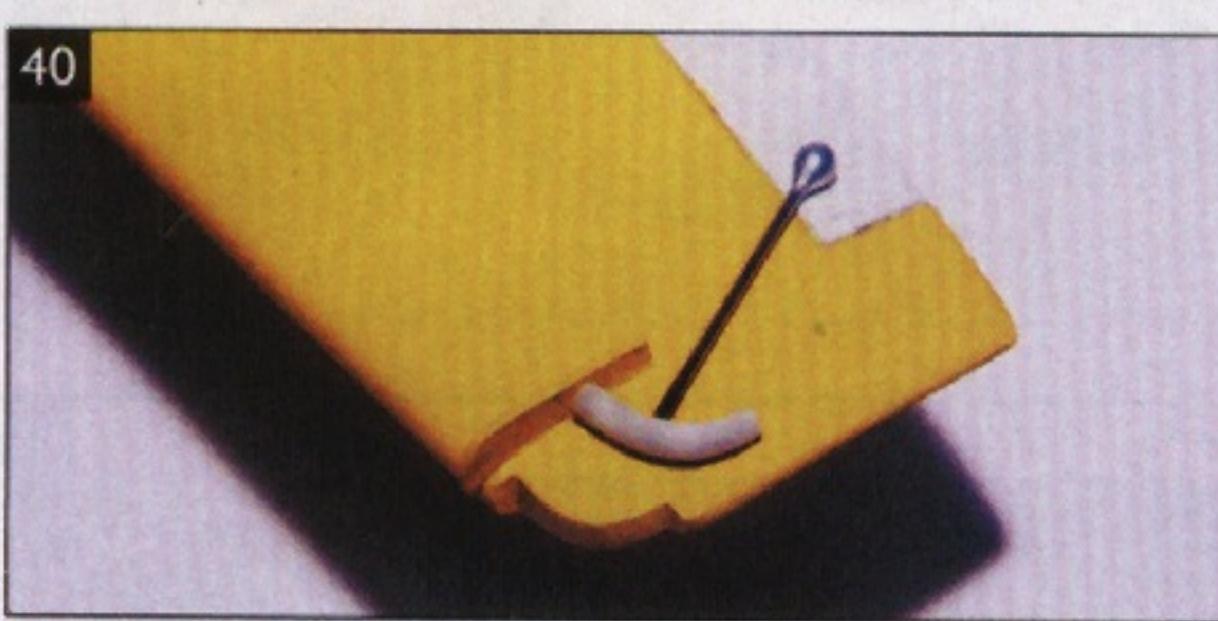


Stations, I cut out individual letters twice, thus producing the needed lettering. In Photo 34 they have been cut out. I find that using a simple rubber band as a 'corral' keeps them all together on the modelling bench - that is, unless one coughs or sneezes. Then it's 'Katy Bar The Door!' Ever had that happen to you? Luckily, it didn't this time! In Photo 35 I've added the names to the ventral fins. Also note the small stencilling etc. on the rear fuselage. Those came from various decal sheets I have on hand for just such occasions. The keen eyes of the reader may also spot what appears to be a ragged edge to the port wing walk trailing edge. That would be touched up before the project was finished. Photo 36 shows the addition of the gas tank filler caps that I made from red decal stock, utilising a Waldron Punch and Die set. The rescue arrow is also visible, going diagonally up the starboard side of the fuselage. That was the second one I applied! Not checking my references frequently enough, I

used a smaller one rather than the larger one provided on the kit decal sheet. Re-checking references one day, I found that the rescue arrow on the prototype carried over onto the black striping on the fuselage. Scotch brand cloudy tape was cut to minimise contact area and the smaller one came right off. The thin black curved line at the base of the fin is visible in Photo 37. Also note the re-fashioned wheels have been glued in place. I used a drafting ink pen with black ink to slowly draw the line in place. Some touch-up was needed to make an equal width. In some cases, I simply put a new X-acto No.11 blade in the holder and very gently, scraped away the unwanted areas of ink once it was dry. My Opti-visor came in quite handy while I did that. Also note the small half-circle on the port landing gear door. As I added an indication of panel lines using a 2B drawing pencil, I was able to outline that half-circle to expose additional detail. If one looks closely at the photo, one can see a bit of a black stripe directly

under the wing leading edge. I'll get to that in a minute. The engine intake's leading edges had been masked and painted black at that stage. In Photo 38 the pre-cut elevators have been glued in place. Using the fishing sinker boxes I made did the trick because adding the elevators caused additional weight to the tail and the additional sinkers kept it from tail-sitting! I painted the leading edges of the elevators silver as that travel area would be visible with the elevators canting downward. Now we have an underside view in Photo 39. Compare this photo with photo number 28. A friend of mine had contacted me at that time to let me know that there were two excellent colour photographs of both 'Prototype - A' and 'Prototype - B' in the book, 'The Official Monogram U.S. Navy & Marine Corps Aircraft Colour Guide, Vol. 4' by Mr. John Elliott. Having the book, I immediately took his advice and checked out the photos. The 'Prototype - A' photo revealed that the yellow on the under-fuselage

extends all the way forward to just short of the wing leading edge. Anyone like to question the need for reference material? A light sanding session to eliminate any chance of a trace of the former demarcation line, a little masking and a re-spray of the yellow, corrected the error I had made. The next photo, Photo 40, begins my backhanded way of making the strobe and navigation wing tip lights. Had I thought ahead, I would not have filed out the positions for the lights on the wing tips. Then, it would have been a simple matter of vac-forming clear plastic using the 'heat and smash' method. Unfortunately, I had carved out the housing ahead of time so that necessitated making a piece which could later be vac-formed, thus producing a clear lens. In the photo, obviously taken at an earlier date due to the absence of the black stripe between the yellow and white, one can see the piece I made from stretched sprue. The back side of the piece had to be flat to fit the depression. I heated a pin to act as a



mount. Photo 41 shows the 'lens' after vac-forming the part, and Photo 42 shows the two strobes and both lenses. Using a thin piece of plastic, cut to a small rectangle, I first painted it silver. Then, according to photos I had, I applied two very small black stripes at each end of the rectangle. Next came a proper length of clear stretched sprue which may be difficult to see in the photo. The lenses have been given a coat of Future floor wax. Masking tape worked well to hold the parts in place as can be seen. A shot of the starboard wing tip is visible in Photo 43. I applied a small piece of black decal to act as a base for the strobe light. I took a shot of the Premier Plus navigation light set I have and that is shown in Photo 44. In addition to the teardrop-shaped wing tip navigation lights, a few with just rounded heads are included and those were what I needed. The finished result is shown in Photo 45. The Premier Plus lights were white-glued into the corner at the outer edge of the entire strobe/navigation

light recess. It was as close as I could get to the prototype. I really like the Premier Plus set as the 'green' is actually a blue/green colour rather than the 'lawn' green one often sees. From my days as an airport bum, I can clearly recall seeing the blue/green colours on wing tip navigation lights. Next in line was the canopy. Czech Model provides two extremely clear canopies and they are visible in Photo 46. They are vac-formed canopies and are quite sturdy, being thicker than the normal vac-formed variety. The problem was, how to go about cutting the canopy in sections, as I wanted to show the canopy open. After running through various scenarios such as scissors, a hobby knife etc., I opted to use my mitre box and razor saw. I cut out the canopy from its backing and used masking tape to secure it in the mitre box. I was able to align the canopy so each frame was split down the centre as a result of each cut. Photo 47 shows how I did that. In addition to the masking tape, I was able to apply

finger pressure to the mitre box and canopy to further reinforce it while it was being cut. The next step was to begin gluing it on the model. Photo 48 shows the windscreens in place. I had coated both inside and outside of each canopy piece with Future to further increase their lustre. As there was so much room, I was able to use thinned white glue on the inside of the mounting area which made for a very smooth joint on the outside. Simply applying two small dabs with a very small brush and stopping there worked well. When those small applications dried, the windscreens were secure for the final glue application. Another shot from the port side is offered in Photo 49. As the frames themselves were so thin, I was able to mask them and apply paint with a brush rather than masking everything and spraying them with the airbrush. Using acrylic flat clear, I coated the inside of the canopy frames to dull them down. Each cockpit had a compass mounted directly in front of the pilot and student, on the cockpit coaming.

I thought that would be a nice detail to add to the model, and in Photo 50 I was able to come up with just the thing I needed. The old Hawkeye Designs generic cockpit set in 1/72nd scale came to the rescue. All the set's components are visible in the photo. Among those parts was a small ancillary instrument panel with recessed gauges. In Photo 51 I've cut two of them out and with the use of Reheat instrument decals I found two that fitted perfectly. Photo 52 shows the results of my efforts, and in Photo 53 they can be seen mounted on the coamings with all canopy sections in place. Although the limitations of photography might make them difficult to see, I added two 0.006 sections of wire to the central, fixed, canopy section at approximately the 10 and 2 o'clock positions. Photos showed them to be there. In Photo 54 a small circular external instrument is visible just to the starboard, and above, the national insignia. Photos showed that prominently, so it was easy to drill a shallow depression, paint it silver,

photo album

All photographs ©George Papadimitriou



An overall view of the T-34 on display at the Turk Hava Muzesi in Istanbul



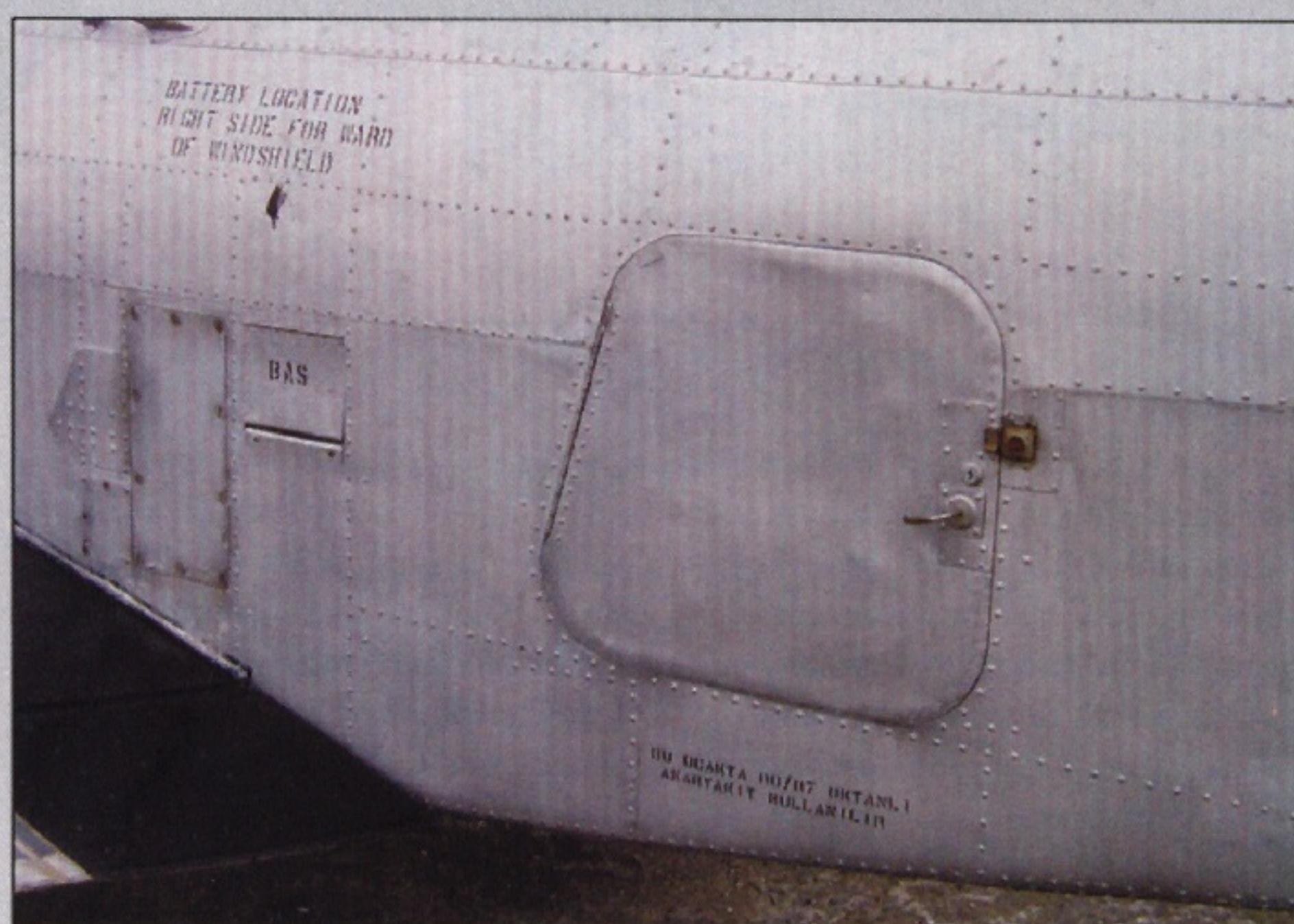
The starboard side of the machine



Close-up of the nose and nose wheel. Note the profile of the early inline powerplant, lack of 'turbo' exhausts and three blade propeller of the T-34C version



This is the starboard main wheel assembly viewed from the front



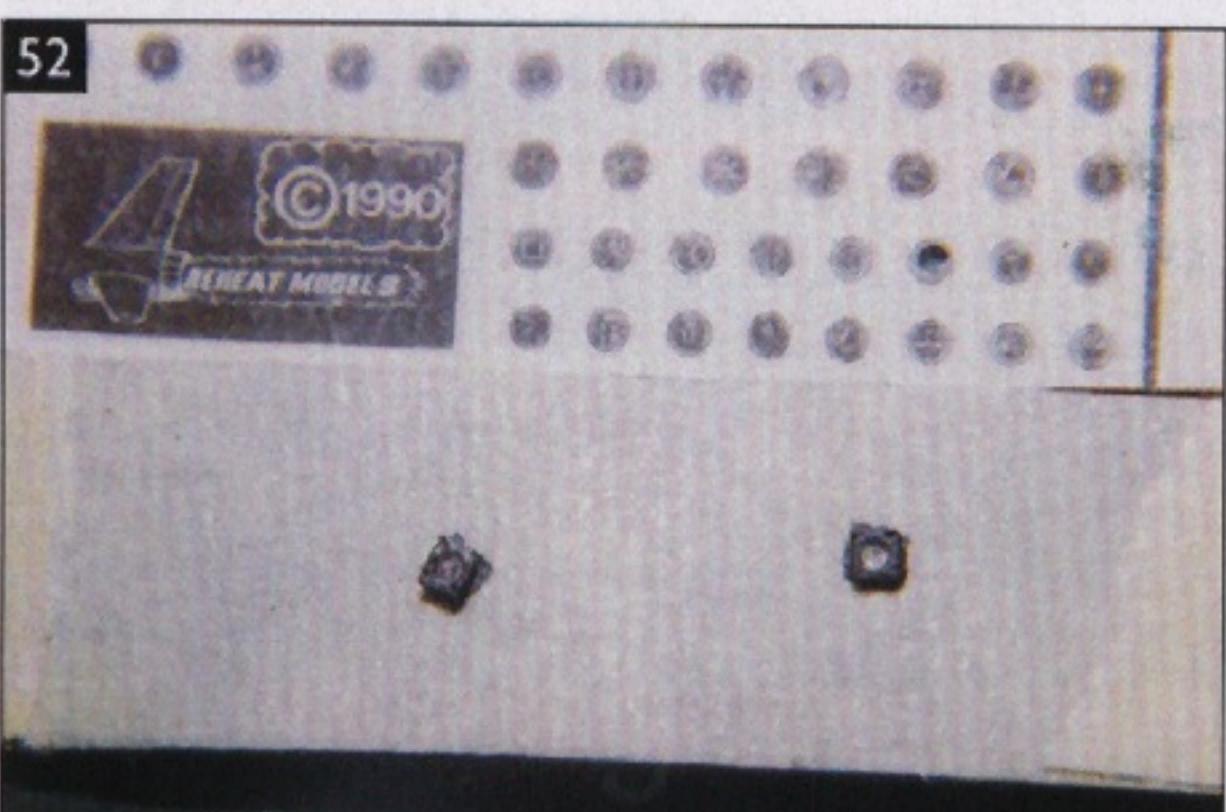
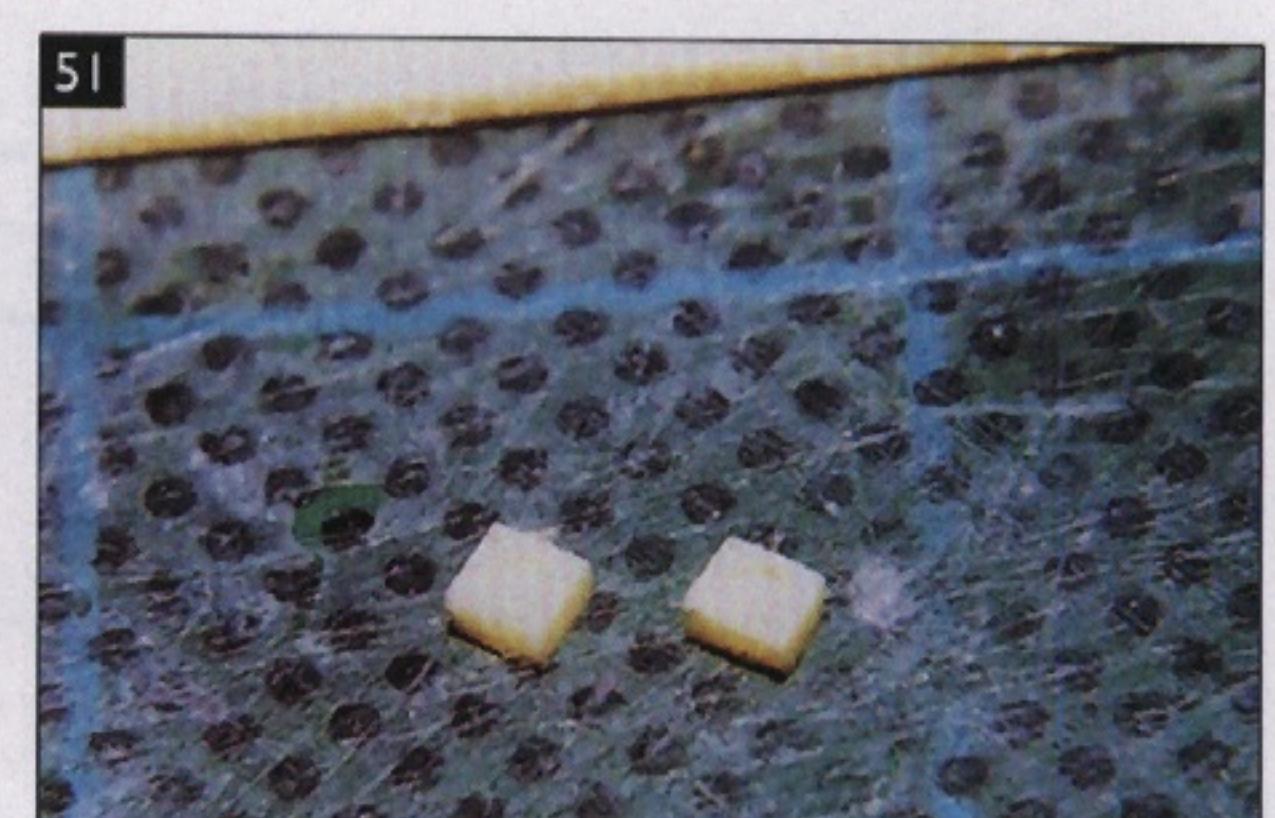
This is the crew luggage compartment on the port fuselage side aft of the trailing edge of the wing



Not a lot can be seen up inside the limited space of the wheel well, but this gives you some idea of the sort of structures in it



Close-up of the cockpit area from the port side. Note the grab handle below the aft canopy section



slap a Reheat instrument in there and put a drop of clear coat over it to represent the glass. I had done the same thing to the compasses as the clear coat gives the appearance of a glass face. As one can see in Photo 55, I feathered the propeller blades as was commonly seen on the flightline after engine shutdown. The white/red/white tips can be seen as well as the yellow propeller tips on the rear part of the blades. I found some propeller manufacturer logos in the spares box and one is visible just adjacent to the starboard engine intake. Also note the tiny yellow stencilling just below the yellow prop tip. Those came from a Verlinden yellow stencilling rub-down sheet I had. The two antennae on the dorsal rear fuselage just ahead of the fin are seen in Photo 56 and at that stage the model was finished! In Photo 57 one can see the horizontal portion of the pitot tube under the port wing. I had previously drilled a tiny hole in it at the tip. A touch of black paint in the hole completed the task. Also note the way the front nose gear

door slants outward at approximately a 45° angle. I had to fashion a new one after losing the kit-provided part. Of course, I later found it, somewhat the worse for wear due to it having attached itself to one of the caster wheels on my chair!

Earlier, when I had applied the fuselage diagonal black stripe, it ended at the forward wing-to-fuselage joint. Although tapered, it does continue down and around, continuing the colour separation. Using gray pastel, I lightly went over the wheel wells to dirty them up a bit, and the same holds true for the exhaust area behind the pipes, however, photographic limitations probably prevent that from being seen. I certainly didn't want to get it too dirty which to me, looks out of scale. To continue with the panel lines through the anti-glare panel, I use a medium gray drawing pencil as obviously, the 2B drawing pencil would not have shown up in that area. A small blade antenna is just forward of the wing as is the pitot tube sticking out.

Conclusion

I congratulate Czech Models for producing this kit. A T-34C Turbo Mentor was a pleasant surprise from that company. I can easily recommend this kit to anyone wanting to build it. Keep in mind that it's a short-run kit, but nonetheless, seemingly accurate in profile. I enjoyed making it and

when my friend came up with the different scheme, that just made it all the more fun to build, paint and decal. If you can find the kit, buy it by all means! It's a good one!

Special thanks to Boyd Waechter for all his help with this project. Good modelling to you.

Frank T. Cuden



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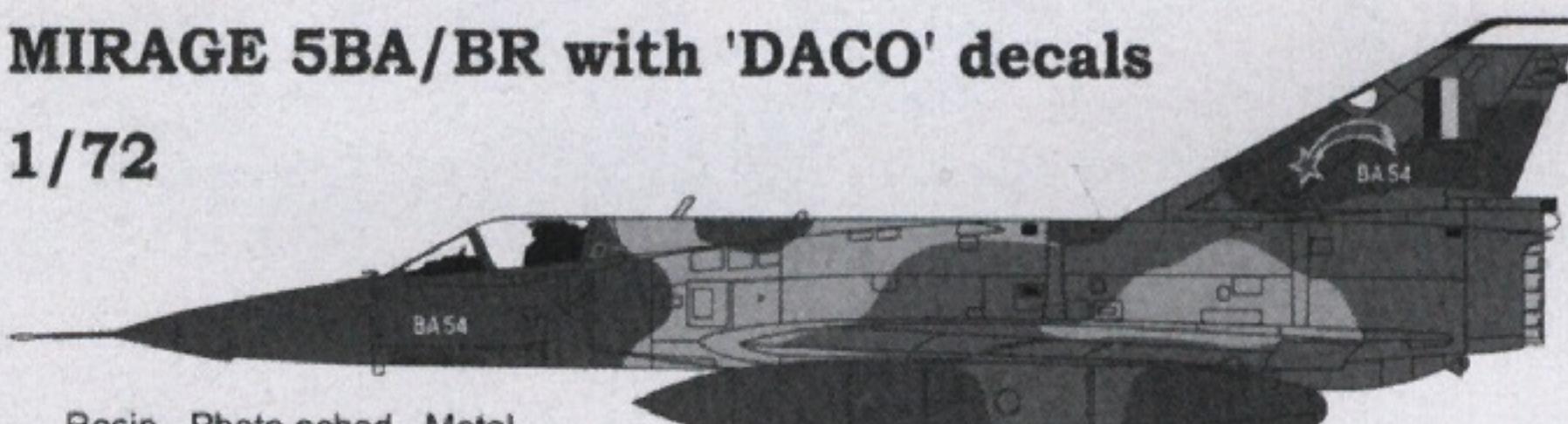


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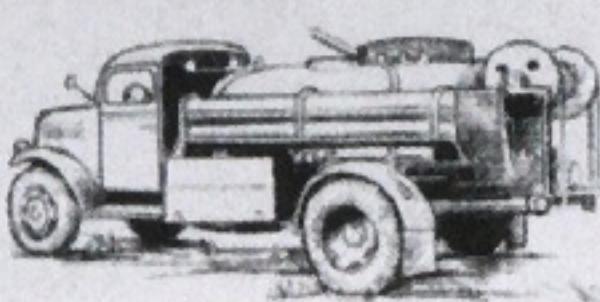
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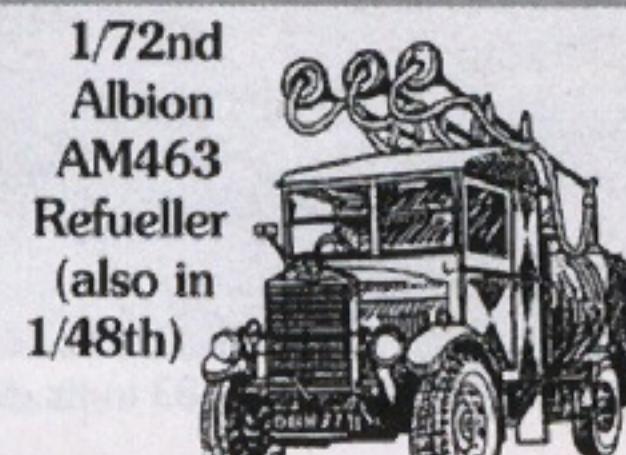
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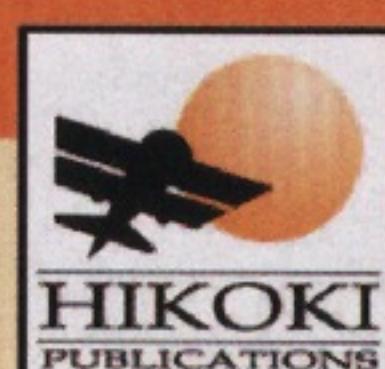


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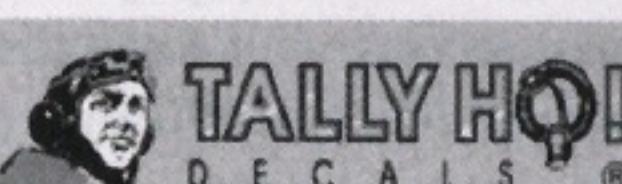
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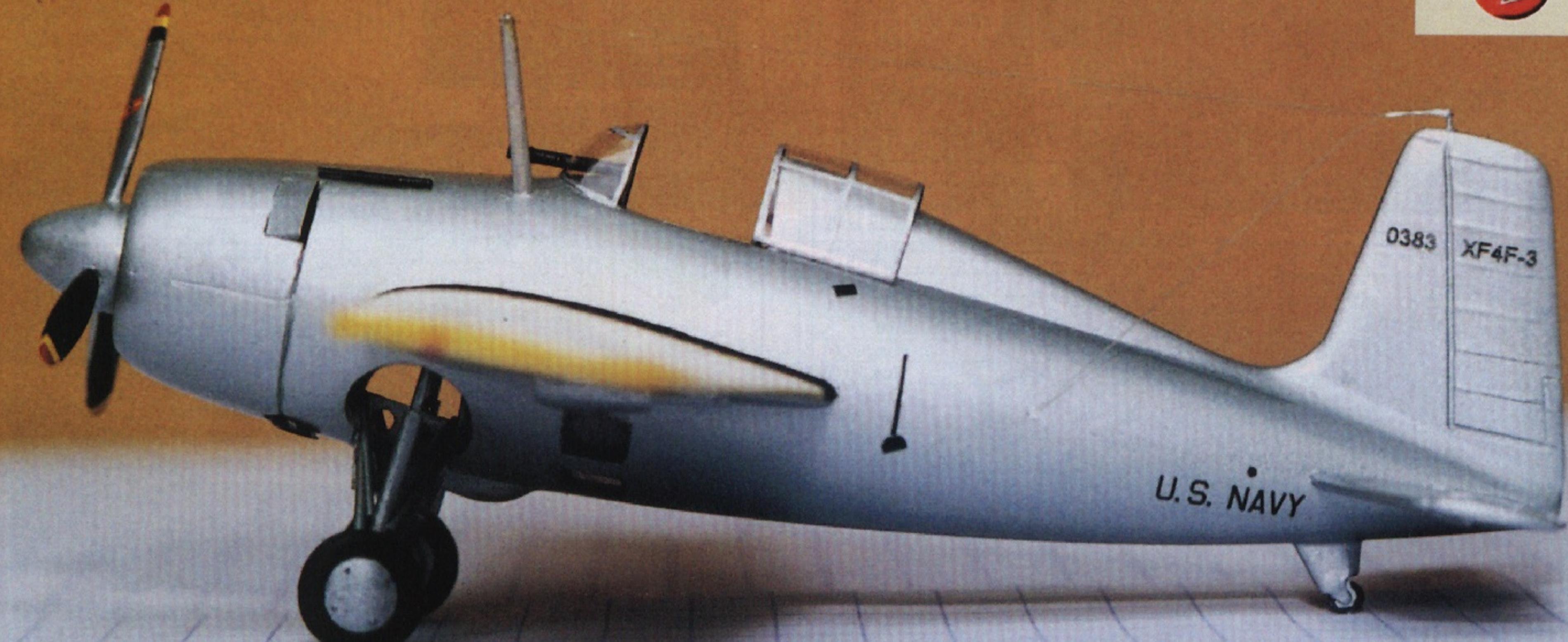
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Wild-X-Cats



by Brian M. Cooker

The photograph that could never be taken in reality. Wildcat 0383 in its distinctive XF4F-2 and XF4F-3 configurations

The age of the biplane fighter was essentially over by the mid-1930s, but some companies persisted in developing aircraft using this time-tested design concept. Grumman was one of these firms, and why not? They had a track record of successful designs in the FF through F3F for the US Navy, and they were holding their own against strong rival companies. When the US Navy held a design competition to procure a follow-on fighter to the F3F in 1936, Grumman submitted drawings for the XF4F-1 biplane. Realising the competition was submitting monoplane designs, Grumman asked for and was granted an extension to resubmit their entry. The XF4F-2 was Grumman's monoplane answer to the Brewster and Seversky designs. Engine problems in the XF4F allowed Brewster's F2A Buffalo to win the

production contract, but the new Grumman showed sufficient potential to warrant funds for continued development. The F4F Wildcat series ultimately surpassed the Buffalo, serving with distinction throughout WWII. The Wildcat may not have been as sleek or manoeuvrable as its foes, but it had the advantage of being incredibly rugged and dependable.

XF4Fs

From a modelling point of view, prototypes have always intrigued me. Not only because they are seldom produced in model form, but also because they are often very different from the main production versions. The XF4F is one of these oddities. Few aircraft that I can recall have gone through as many noticeable configuration changes as did the Wildcat during its progression from

paper to production. The evolution from the XF4F-2 to the production F4F-3 offers the opportunity to model some distinctive profiles that will add variety to your straight-from-the-box collection. (See Photo 1).

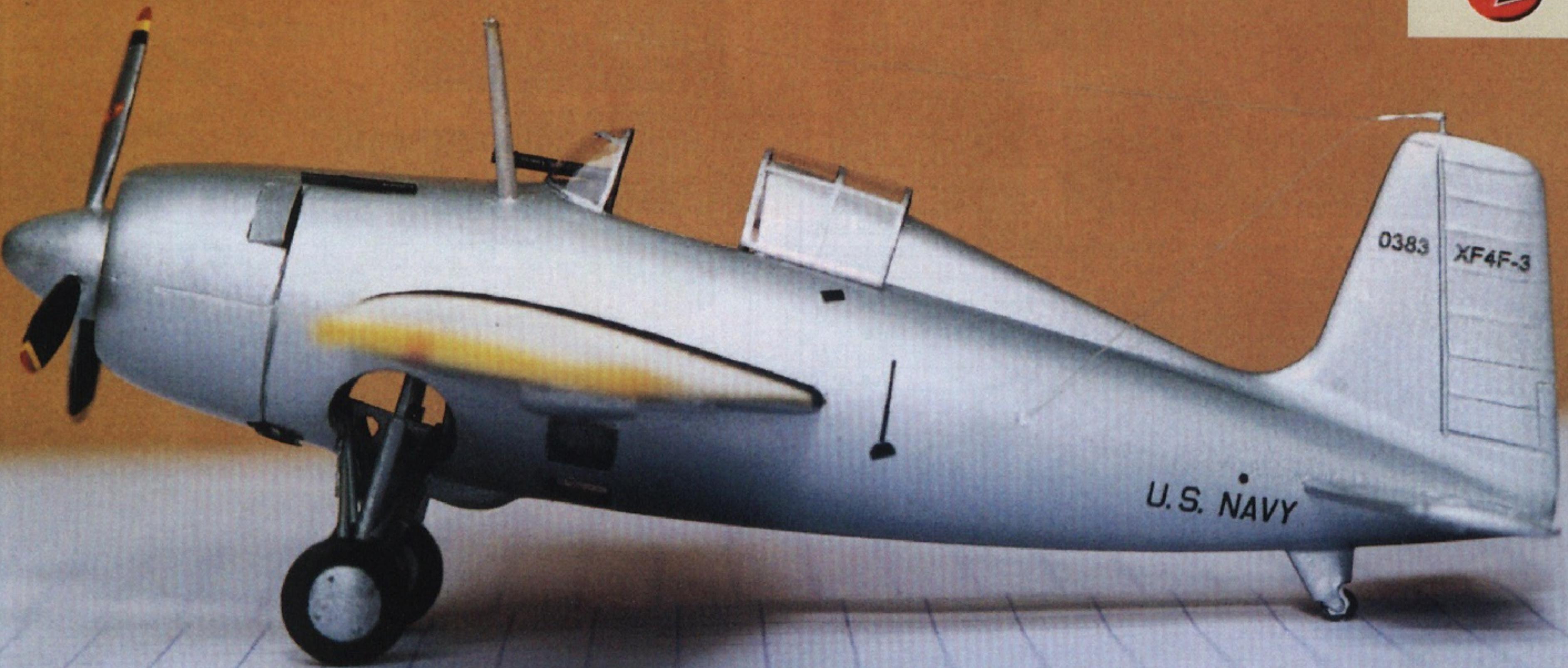
Choosing the Subject

I decided to model both the XF4F-2 and the early XF4F-3, but to do so, some serious surgery was required. The kit manufacturers have not ignored the Wildcat, so there are plenty of options to provide a base for these significant but not too difficult conversions (see Kit Reviews listing elsewhere). My collection is exclusively 1/72nd scale and includes all of the kits listed. Unfortunately, I was faced with a dilemma. Do I cut up and quite possibly ruin a perfectly good Hasegawa kit or do I attempt to reconstruct one of my ancient renditions that is clearly outclassed by

the newer kits? I finally opted for the Airfix offering of the FM-2/Wildcat VI. I had several reasons for this choice: (1) I had two of them, built many years ago with more youthful enthusiasm than skill, (2) this kit has many shortfalls in detail and fidelity of scale which require some (a lot of?) work to bring it up to snuff, unless you are creating a Guadalcanal scrapyard diorama, and (3) if the attempt to modify them failed, I would have lost only \$1.00 worth of plastic and not \$15.00! Regardless of your choice, all of the currently available models will require the modifications described in this article to produce a prototype Wildcat, so do not lose sleep over trying to find a particular company's kit.

The Conversion Process

The transition from your base kit to the XF4F-2 and early XF4F-3



1/72nd Scale

Manufactured by



Wild-X-Cats



by Brian M. Cooker

The photograph that could never be taken in reality. Wildcat 0383 in its distinctive XF4F-2 and XF4F-3 configurations

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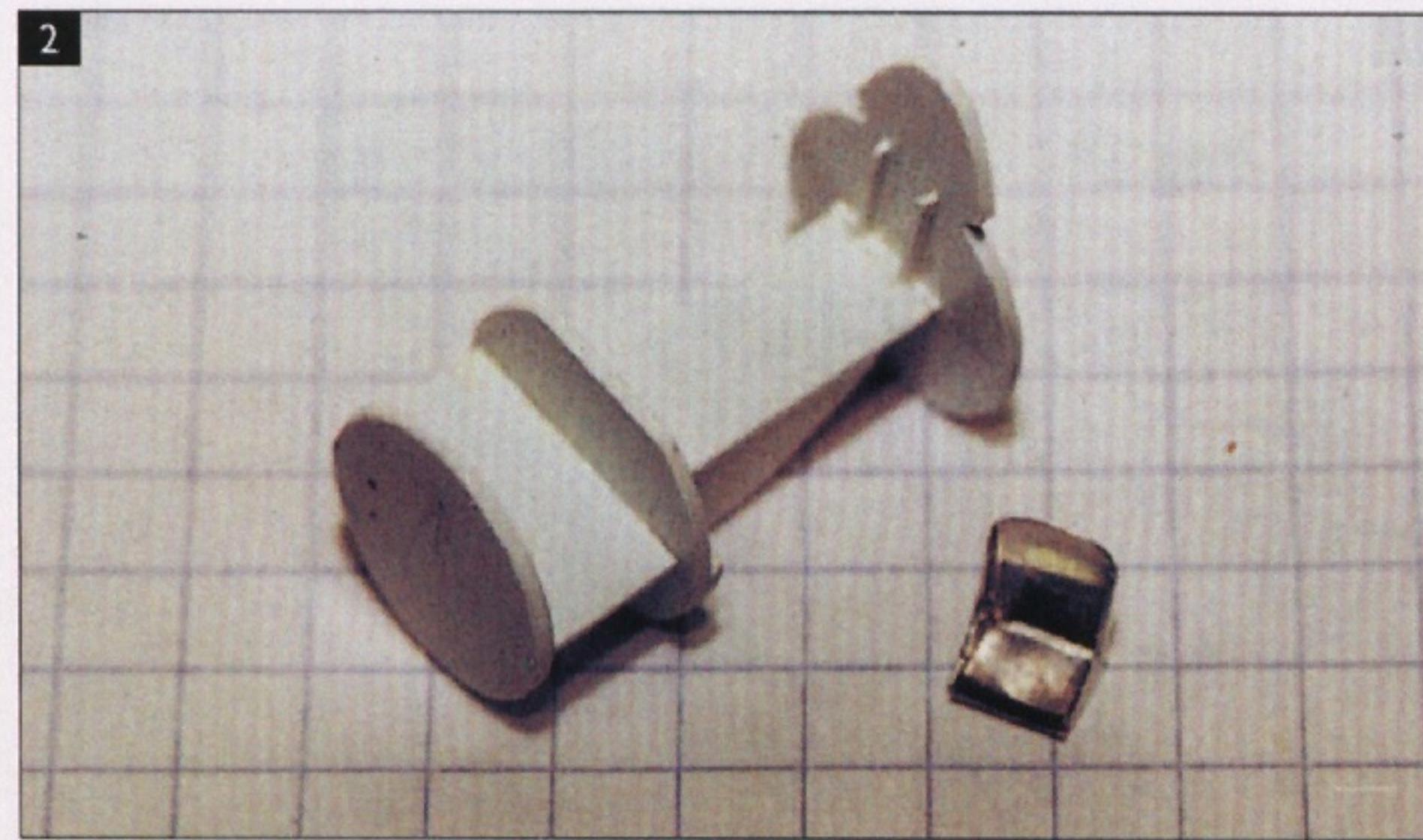
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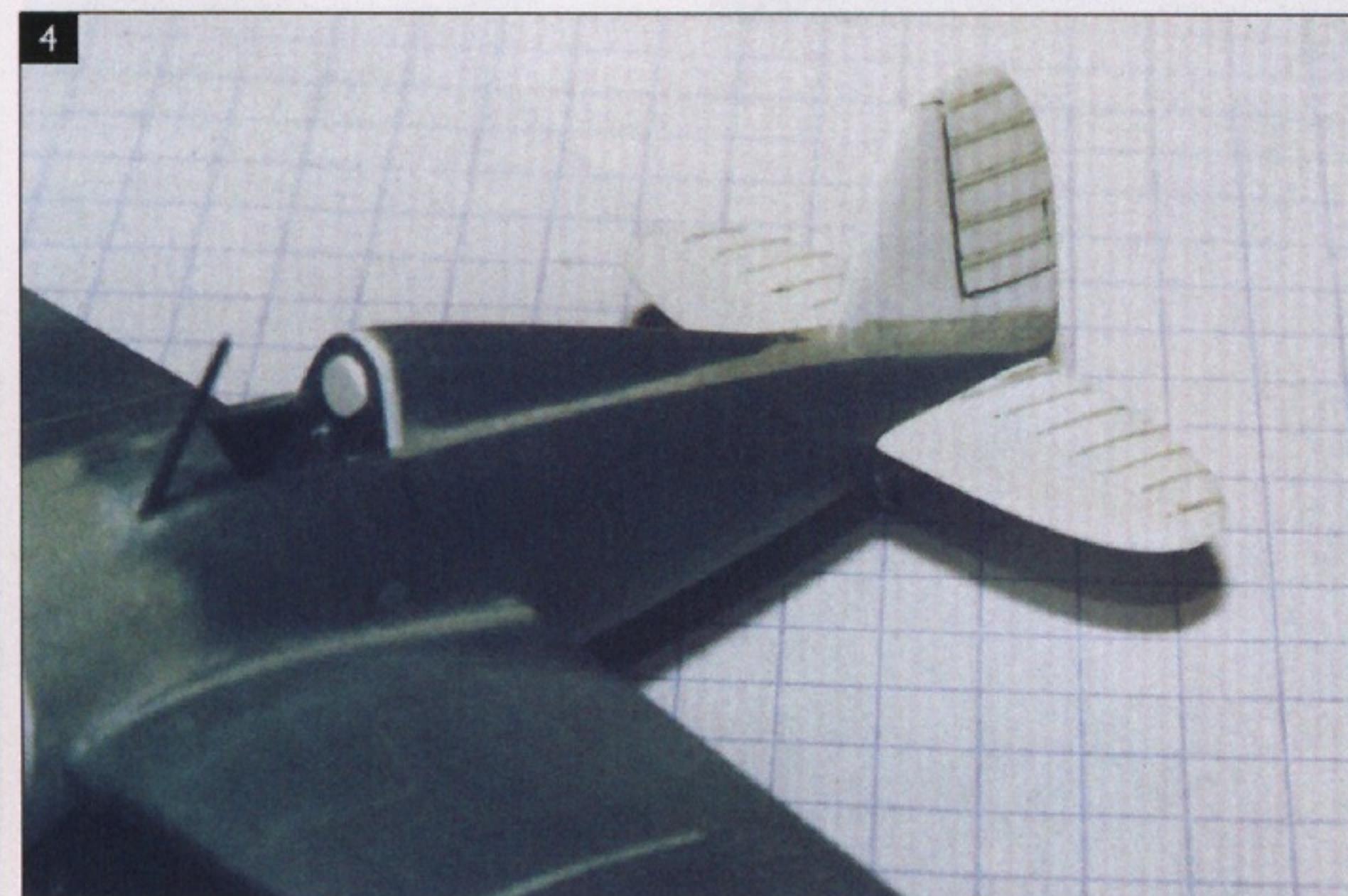
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The Conversion Process

The transition from your base kit to the XF4F-2 and early XF4F-3



Cockpit and wheel well structure made from 40thou sheet



Control surface rib detail. The headrest was punched from 10thou sheet



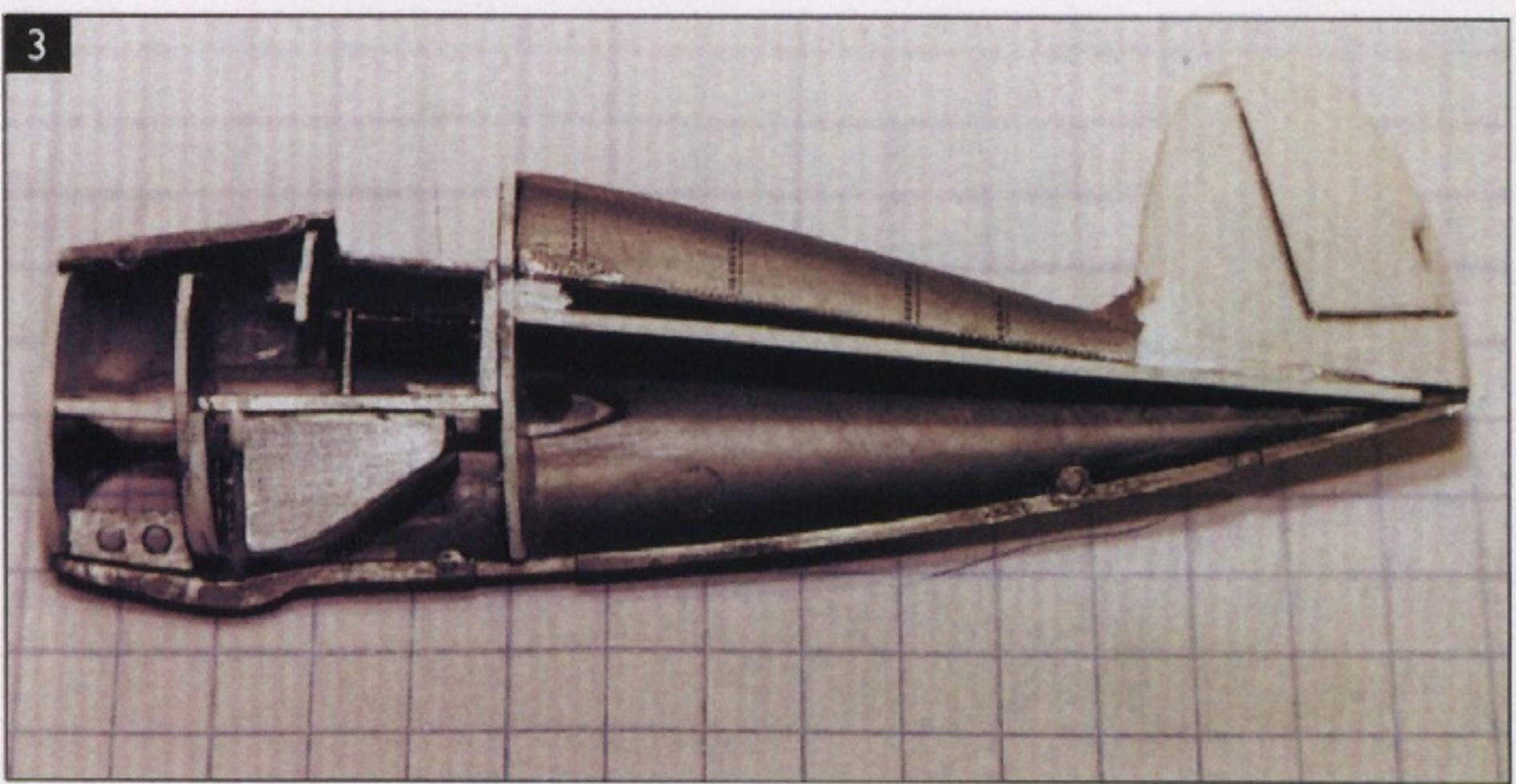
The cowling for the XF4F-2 was taken from the Airfix Dauntless kit

(hereafter referred to as the -2 and -3, respectively) will follow similar paths. Since there is so much in common, I will treat them together noting the -2 and -3 differences as we go.

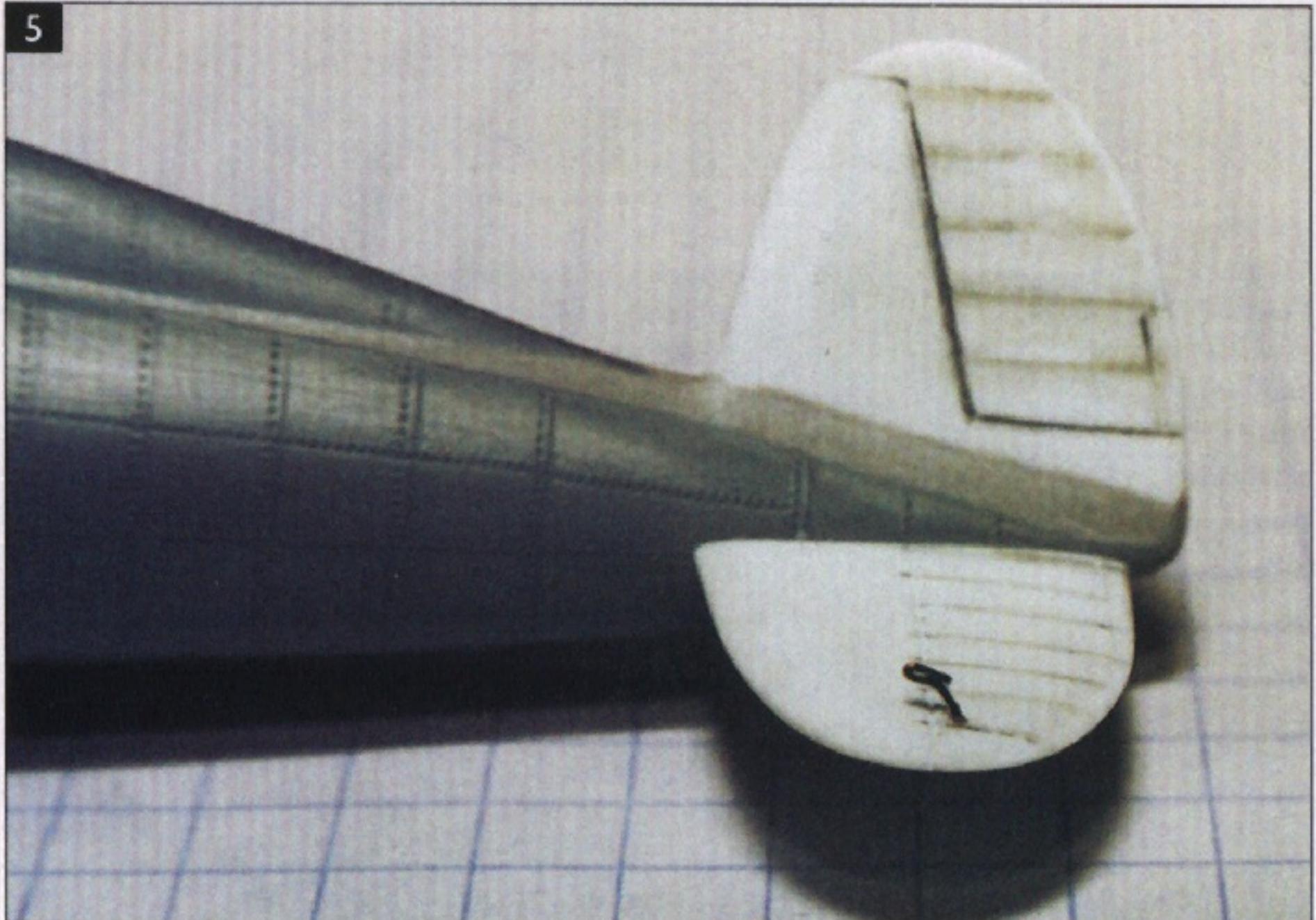
Step 1: The Fuselage and Cockpit

The most significant modifications are required in the fuselage. Due to the extent of the changes and the addition of scratchbuilt sections, I opted to completely remove all surface detail provided by the kit. Start the alteration process by cutting off the upper spine at the seam and trimming it down to the shape shown in Figure 1. I scored the crease between the spine and the fuselage with a knife and carefully twisted the spine section until it broke free. Remove and discard the fin and rudder. After joining the two halves of the remaining spine, it will be re-attached between the fuselage halves

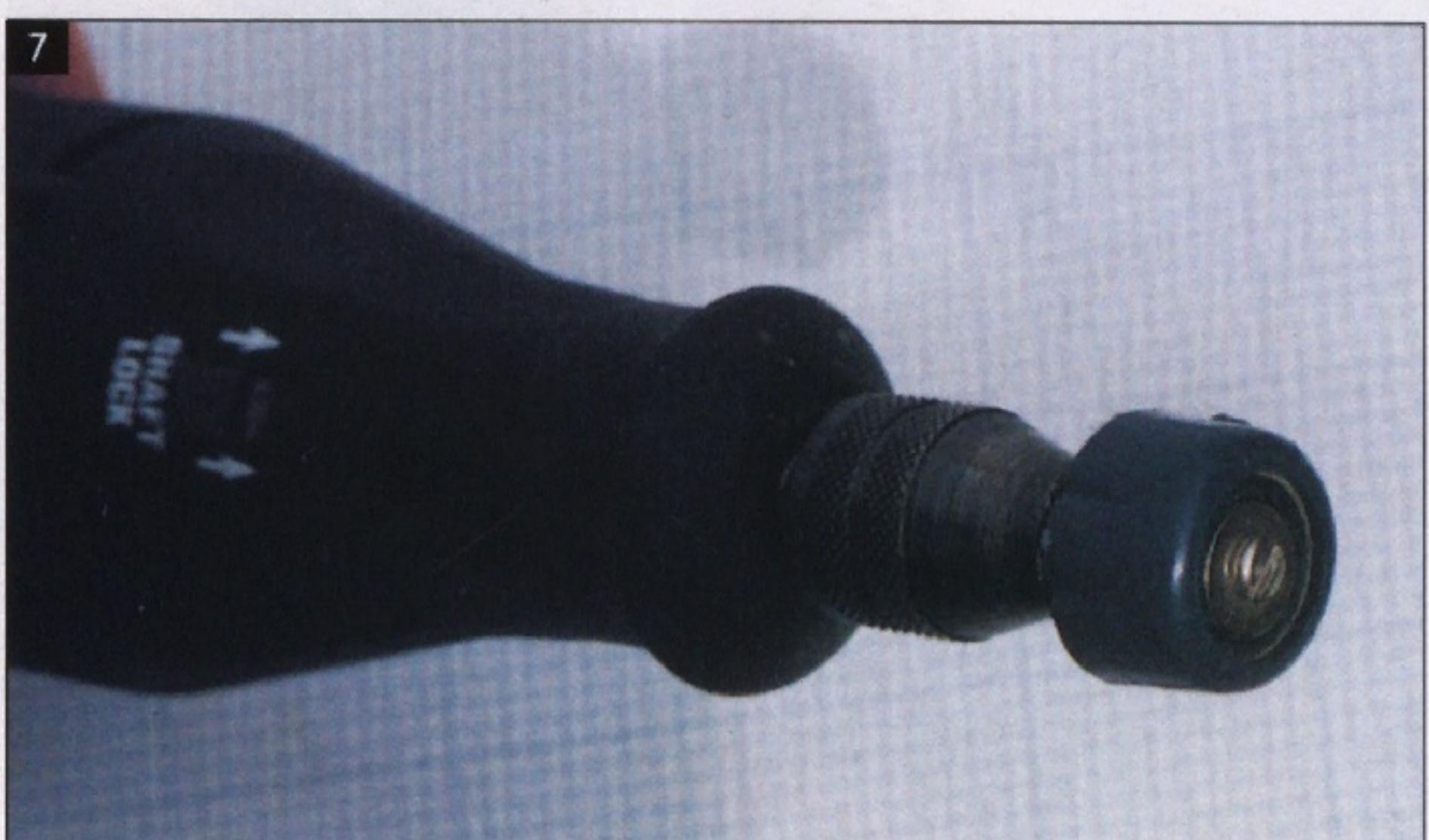
just aft of the cockpit and rotated down at the fin, leaving no vertical spine showing at the junction. You will have to trim some of the fuselage wall just aft of the cockpit to make sure the spine fits without expanding the width of the fuselage. By using most of the kit's original spine, you retain the basic curves and reduce the need for excessive putty. For the -2 only, cut the forward fuselage approximately 1/8in (3.25mm) forward of the wing leading edge, insert a new firewall and round the edges slightly to present a noticeable break between the fuselage and the cowling. Even if you do not desire to superdetail the interior, some additional bulkheads made from 40thou styrene sheet are recommended. Figure 2 provides templates for the various bulkheads with 1 being the forward firewall and 2, 2a, and 3 following aft. Position



Fuselage ready for closure. All interior surfaces were painted with Testors Flat Aluminum



Mass balances made from thin copper wire for the -2 only. The tips were coated with superglue to produce a tear drop effect

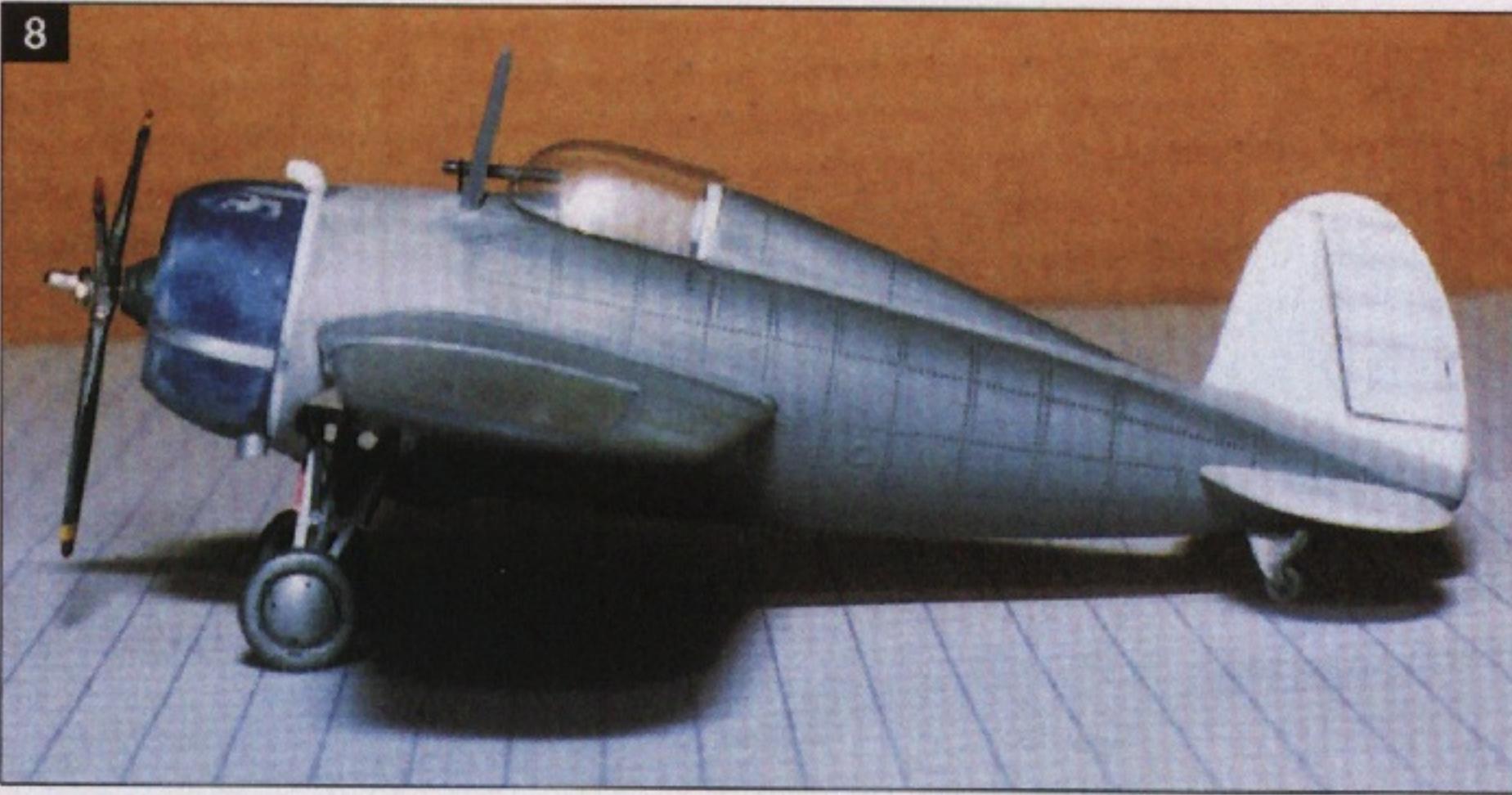


The Airfix Dauntless cowling mounted on a Dremel tool ready to be sanded into shape

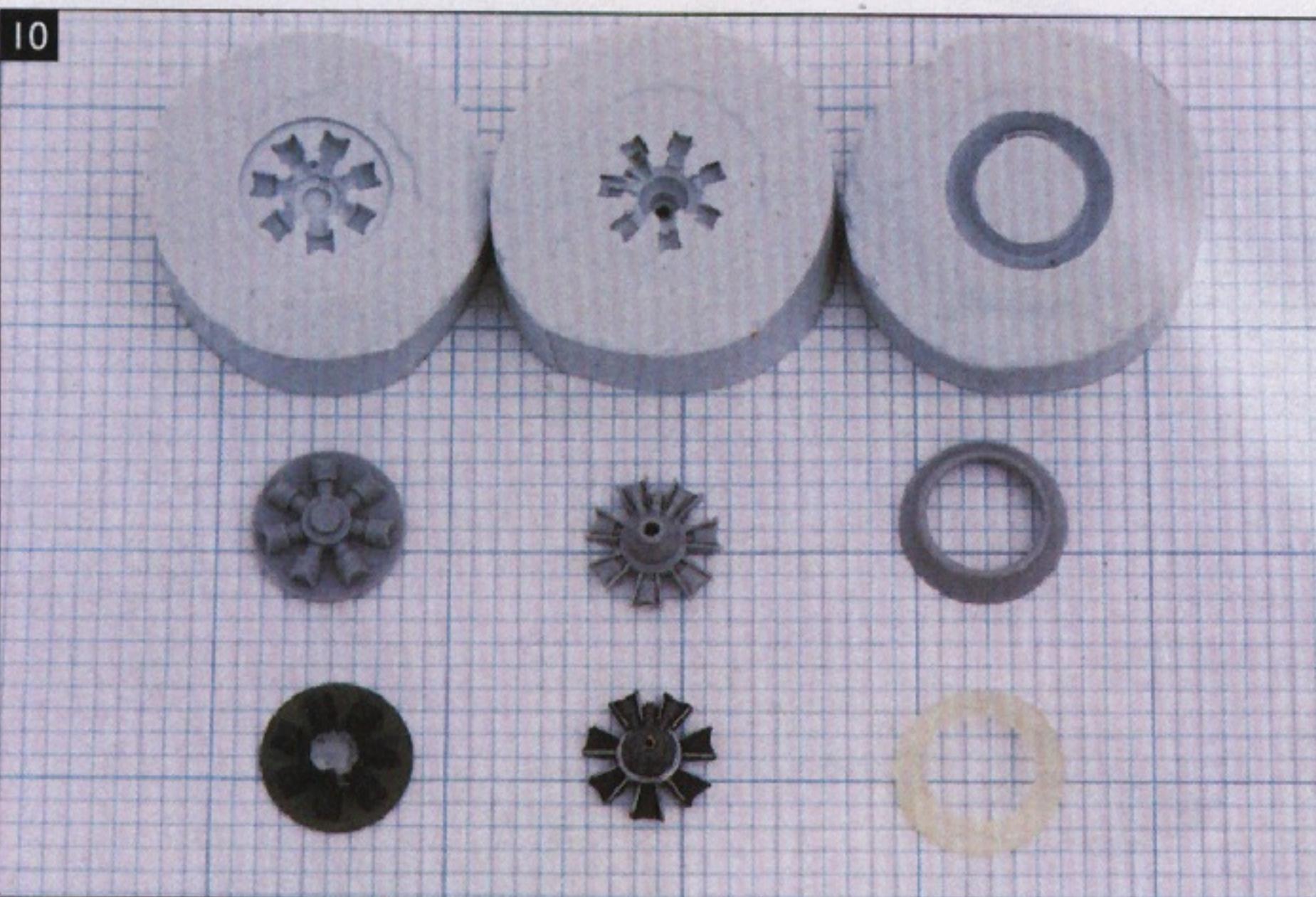
bulkhead 2 flush with the rear gear door opening with 2a immediately behind to double the thickness. The reason for this will be explained in step 4. Bridge the distance between bulkheads 1 and 2 to form a wheel well compartment ceiling. This ceiling should be just above the wheel opening and the full width of the fuselage. Next, cut a cockpit floor to span from bulkheads 2a to 3. The real Wildcats had narrow foot troughs which left clearance on either side to allow the pilot to look down through windows in the belly. I made the floor slightly wider than the seat. Taking a cue from some aftermarket brass detail sets, I made a seat from an aluminium beverage can. [Figure 3]. The aluminium is easy to work with, it takes paint and superglue well and is cheap and readily available. Photo 2 shows the resulting wheel well and cockpit

structure.

Before I glued the cockpit and wheel well enclosure to the fuselage, I cut extra belly windows for both the -2 and -3. The new window opening should be the same size as the existing window and located just above it. I made the windows themselves from Squadron's Clear 10thou thermoform clear plastic and attached them with Plastruct Plastic Weld. I have found this liquid cement does not craze most clear plastics when used sparingly, and as a bonus, it has extra 'body' that acts as a gap filler. I also added two side consoles made of aluminium, as per Figure 3, which were superglued to the cockpit wall. Add the instrument panel and complete any other cockpit and wheel well detailing that will not be easily accessible after the fuselage halves are joined. Make a fuel tank from thin styrene sheet



XF4F-2 profile. Note the antenna mast is vertical but leans to the left



RTV moulds, Hasegawa kit parts and resin cast copies



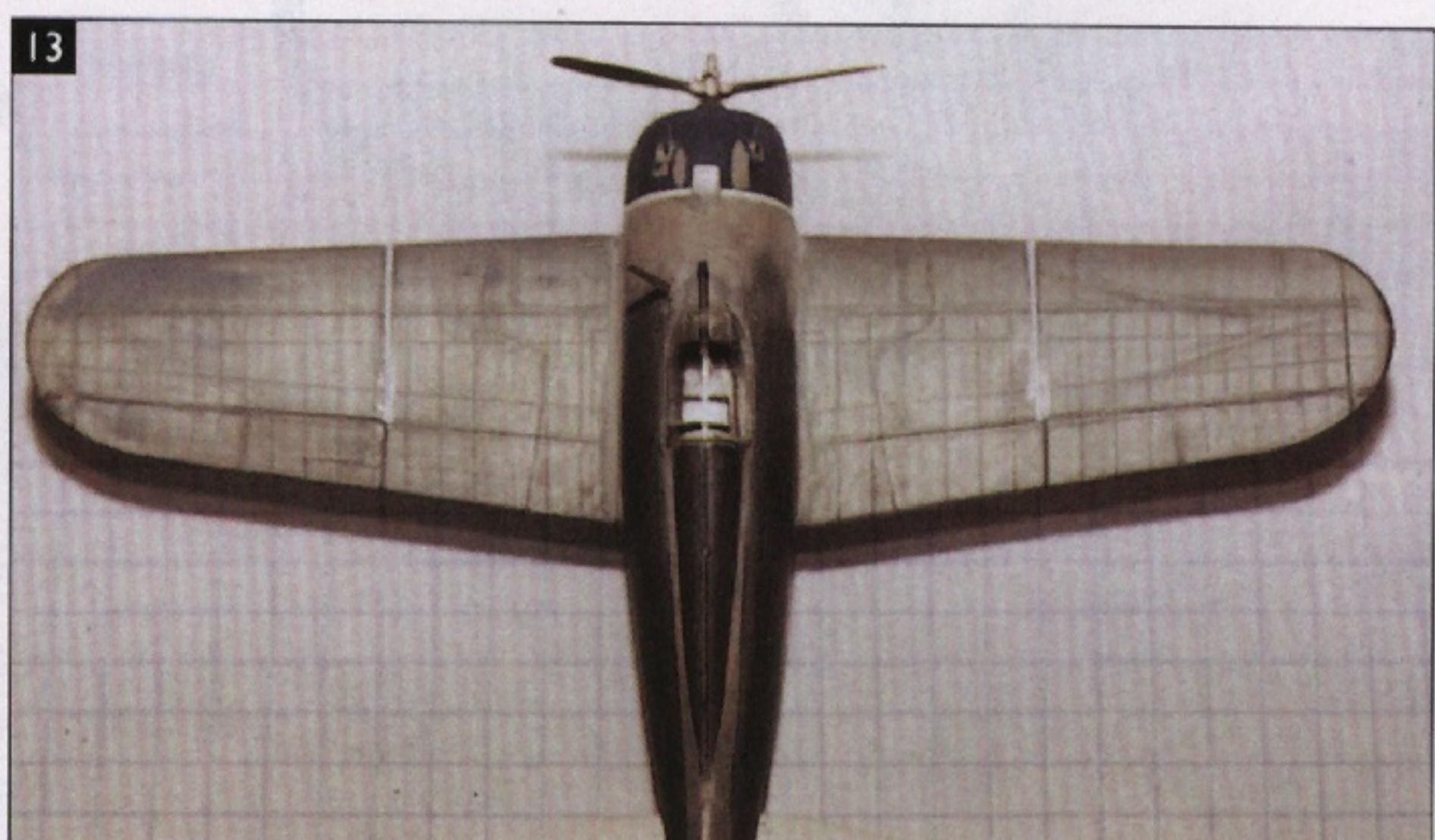
Oil coolers on both wings and angled, more streamlined exhaust stacks on the XF4F-3



Casting materials used to duplicate kit parts



Single oil cooler scoop and vertical exhaust stacks on the XF4F-2



The XF4F-2 wing span was 34ft. Note the raised channels on both sides of the wings

and attach it under the seat, midway between bulkheads 2a and 3. At this point, glue the cockpit enclosure to one fuselage half and add the cut-down spine and support behind bulkhead 3. Trim the spine and its support as required to get the correct angle and fit. Make a new fin and rudder out of 60thou sheet styrene. Figure 4 shows the profiles for the round -2 and the more angular -3. Note: The drawing indicates the total height of the fin/rudder. Since the exact position and alignment of the fin support may vary, cut the new fin/rudder slightly longer than required. Trim to the proper angle and height after the spine support is glued to the fuselage half. Scribe the fin/rudder and trim tab hinge lines. Photo 3 shows the fuselage ready for closure. Join the fuselage halves together and fill the gaps between the fuselage

halves and the spine, tapering the fin joint with filler.

Using the templates in Figure 5, make the horizontal tailplanes for the version(s) of your choice from 60thou sheet. Round or taper the appropriate edges and scribe the hinge and trim tab lines. The reshaped stabilisers for both the -2 and -3 are mounted low, directly to the fuselage. The elevator hinges were made from pieces of 5thou strip styrene. Do not go crazy over the elevator's and rudder's fabric surfaces. The rib detail (See Photo 4) is very subtle and may be left smooth, or if you are adventurous, try the technique described below (See sub-section: Fabric). Next, for the -2 only, add elevator counter balances made of thin copper wire as per Photo 5. After bending the wire, I coated the tip with superglue to get the teardrop shape required. For the

-3, the stabilisers have a slightly more swept-back leading edge than the production version and do not have the mass balances.

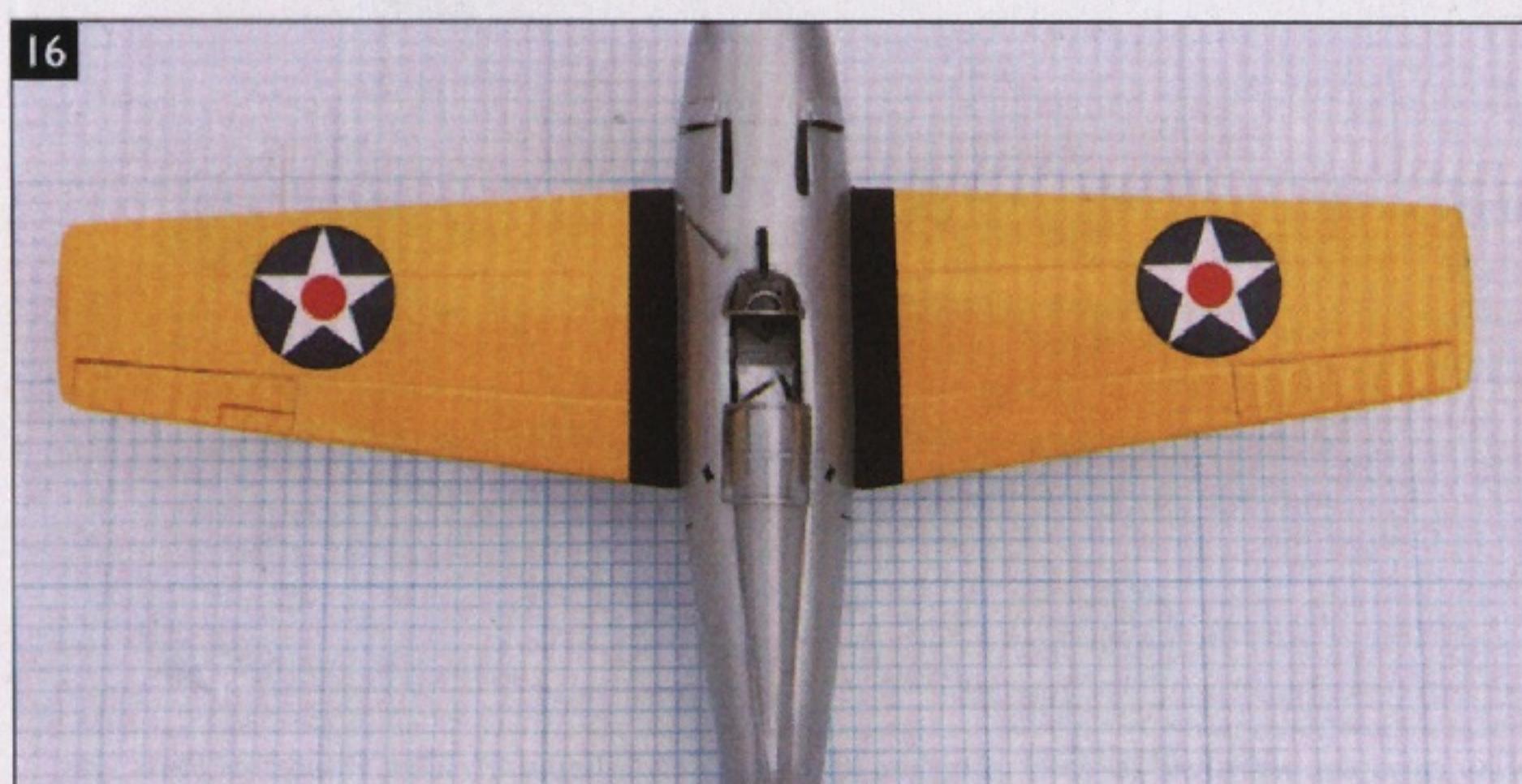
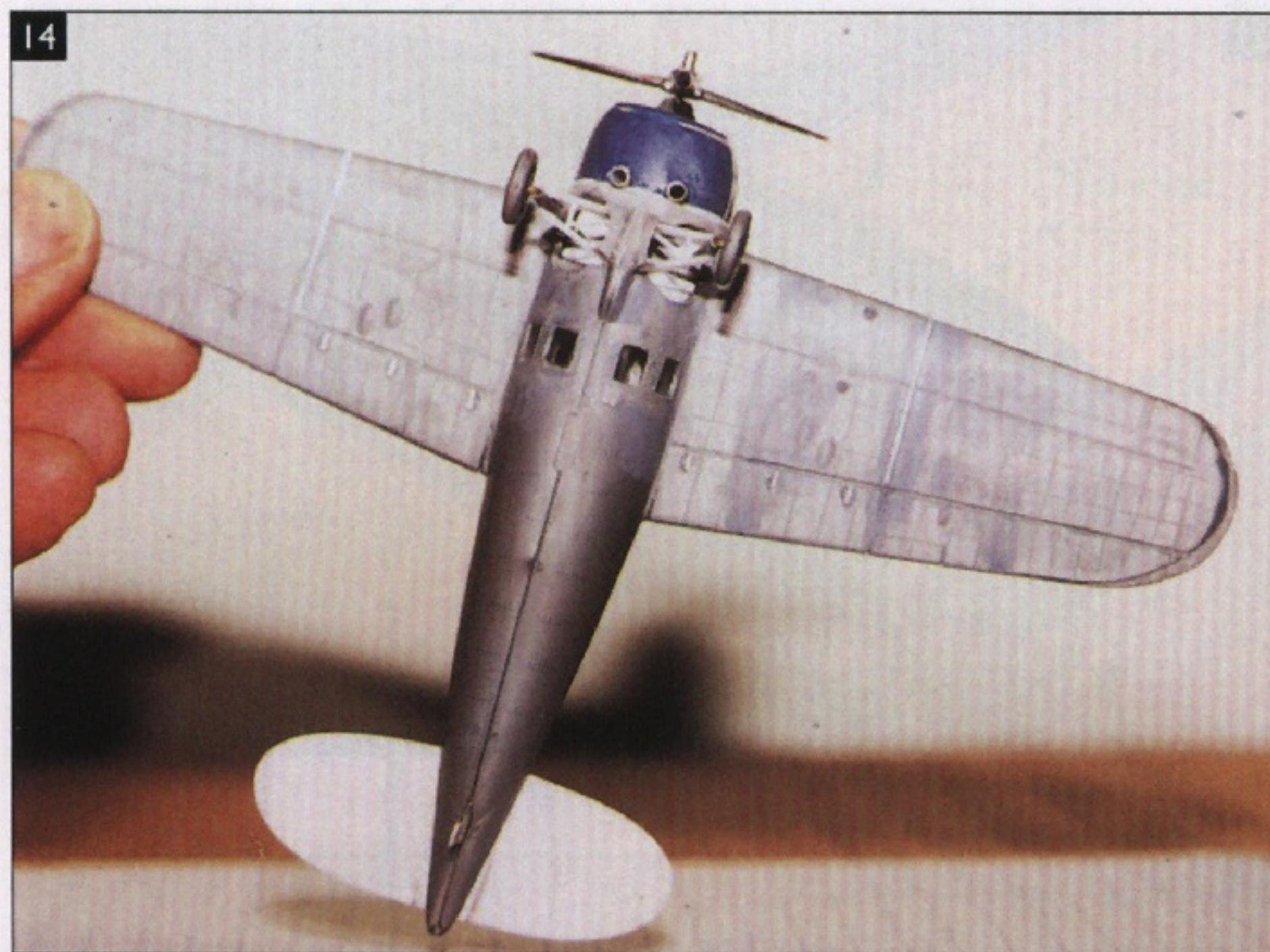
Step 2: The Cowling, Engine and Propeller

You have several options here. Due to the cooling problems with the real Wildcat, a number of cowling, propeller and spinner combinations were tried, so check your references and pick one you like.

For the -2, I selected an early configuration of a 'short' rounded cowling. Since I never throw anything away, I had a spare Airfix SBD cowling (the kit comes with two), and it only took some minor rework to get the shape I was looking for. I filled the SBD gun troughs, removed the kit exhaust stubs and turned the cowling on a Dremel tool to get a consistently rounded profile. The SBD cowling fits very nicely on a

sanding attachment making the process relatively easy (See Photos 6 & 7). An added benefit of this approach is the plastic in the Airfix cowling is so thick, there is still plenty of 'meat' left to mate with the fuselage without extra shims. On this version there is a very obvious raised joint at the 4 and 8 o'clock positions of the cowling. I used a piece of aluminium tape to represent this and sanded the edges to ease the abruptness of the seam. Two 30cal. nose gun troughs and gun blast tubes are also prominent features. Carve or file the troughs into the top of the cowling, and add pieces of 20thou rod or sprue to give the right effect. Add a new carburettor air scoop at the cowl-fuselage joint. The propeller is an Aeroclub Hamilton Standard, 11ft variable pitch unit, trimmed to a scale 10ft (See Photo 8).

For the -3, the shape of the stock



XF4F-3 with squared off wing tips, shorter (but still longer than production) ailerons and trim tab on the port side only



Wheel indentation detail

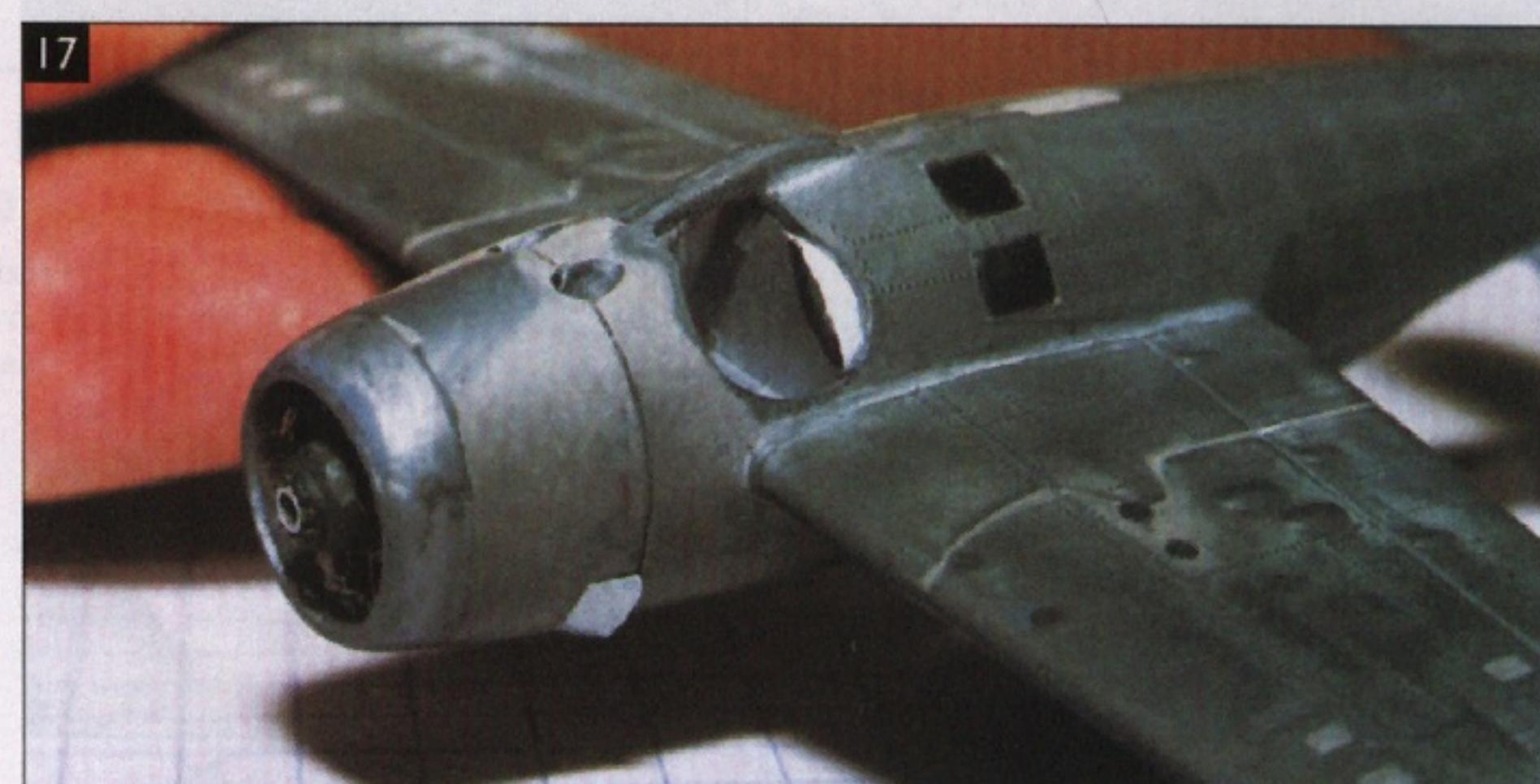
Hasegawa cowl looks okay. Again, check your references as some photos show a carburettor air scoop in the nose and others do not. I chose the version without the scoop. To salvage my Airfix cowling, I made a resin cast of the Hasegawa Martlet cowl ring and used filler to bring the shape back into a more circular cross section. After filling the kit cowl flap lines, I cut holes on either side of the cowl and made new, single, cowl flaps from the increasingly popular beverage can aluminium. These were attached in the open position to provide a little variation in the profile. My prop came from the spares box, as did the large spinner. The blades were cut and shaped to the proper 9ft diameter and do not have cuffs, although these were added on the prototype at some time during development.

The Pratt & Whitney R-1830

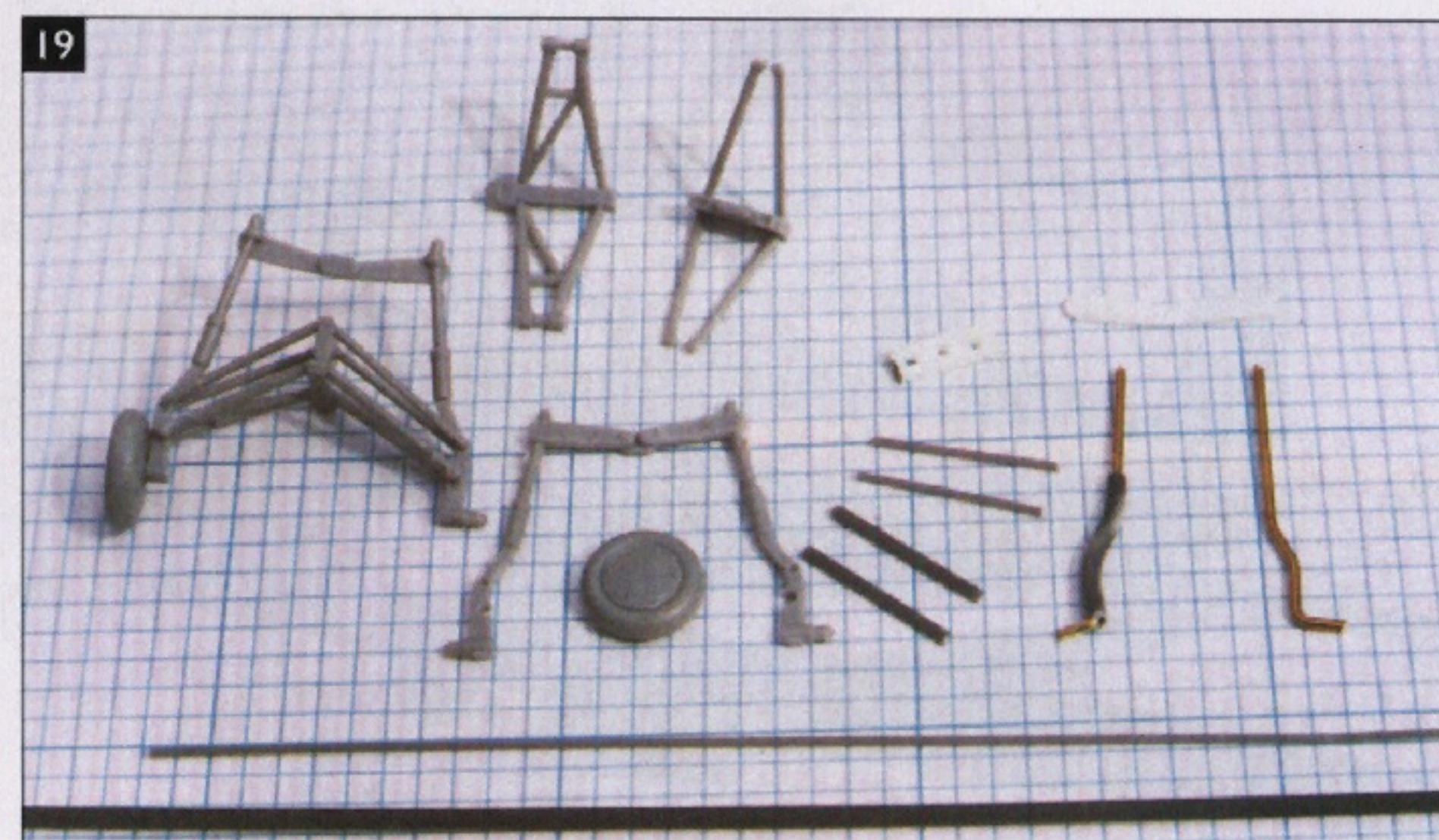
engines for both the -2 and -3 came from a spares box Revell PBY. I removed the plastic blobs that were supposed to be magnetos and added smaller renditions made from scrap. This is not necessary if you are using the Hasegawa kit, but first aid is definitely needed for the Airfix and Frog/Academy kits. (In retrospect, I wish I had used some cast copies of the Hasegawa engine as they are much better (See Photos 9 & 10). Shown from top to bottom are RTV moulds I made from the Hasegawa originals, the Hasegawa P&W R-1830 and Martlet cowl ring and the resin copies. I used these to upgrade my Frog and Revell kits.) The exhaust stubs are very prominent on both versions and were made from 90thou aluminium tubing. On the -2 they come straight down at the rear of the cowl, whereas the -3's are



The finished XF4F-2 with long span ailerons and trim tab on the port side only



Both versions have semi-circular indentations in the rear bulkhead for the wheels. Note the extra window for both versions and single cowl flap for the -3 only



Hasegawa landing gear and scratchbuilt duplicate parts

slightly more recessed and angled to the rear (See Photos 11 & 12).

Step 3: Wings

This portion of the operation is not too radical, but it is still very distinctive. Before the Wildcat was optimised for mass production, the wingtips were rounded as shown in Figure 6. This is in addition to a shorter span of 34ft on the -2 vs. 38ft in the -3 and production versions. Cut and shape the wing to the rounded tip -2 and remove all surface detail, filling any panel and aileron lines. Re-scribe the longer span ailerons for the respective version, and add the fabric rib treatment described elsewhere. Re-scribe the flap joint, and add 5thou styrene strips for hinges. There was a very pronounced channel or ridge running chord-wise just inboard of the ailerons on the -2 only, which I

added using some 5thou styrene strips (See Photos 13 & 14). Remove the oil coolers for the -2 and replace them with an aluminium scoop on the port wing only (See Photo 11). My references mention provision for 50cal. guns in the wings, but I could detect no evidence of any ports, panels or ejector chutes in the photos, so I omitted them entirely. I added scribed lines above and below each wing over the spar/skin joint. Photos 15 & 16 show the finished product of the -2 and -3, respectively.

Step 4: Landing Gear and Canopy Details

Before adding the landing gear, mark a semicircular line on bulkhead # at the limits of the kit's wheel cut-out. Using a Dremel or similar routing tool, carve out the wheel indentations (See Photos 17 & 18). The double thickness of the bulkheads should



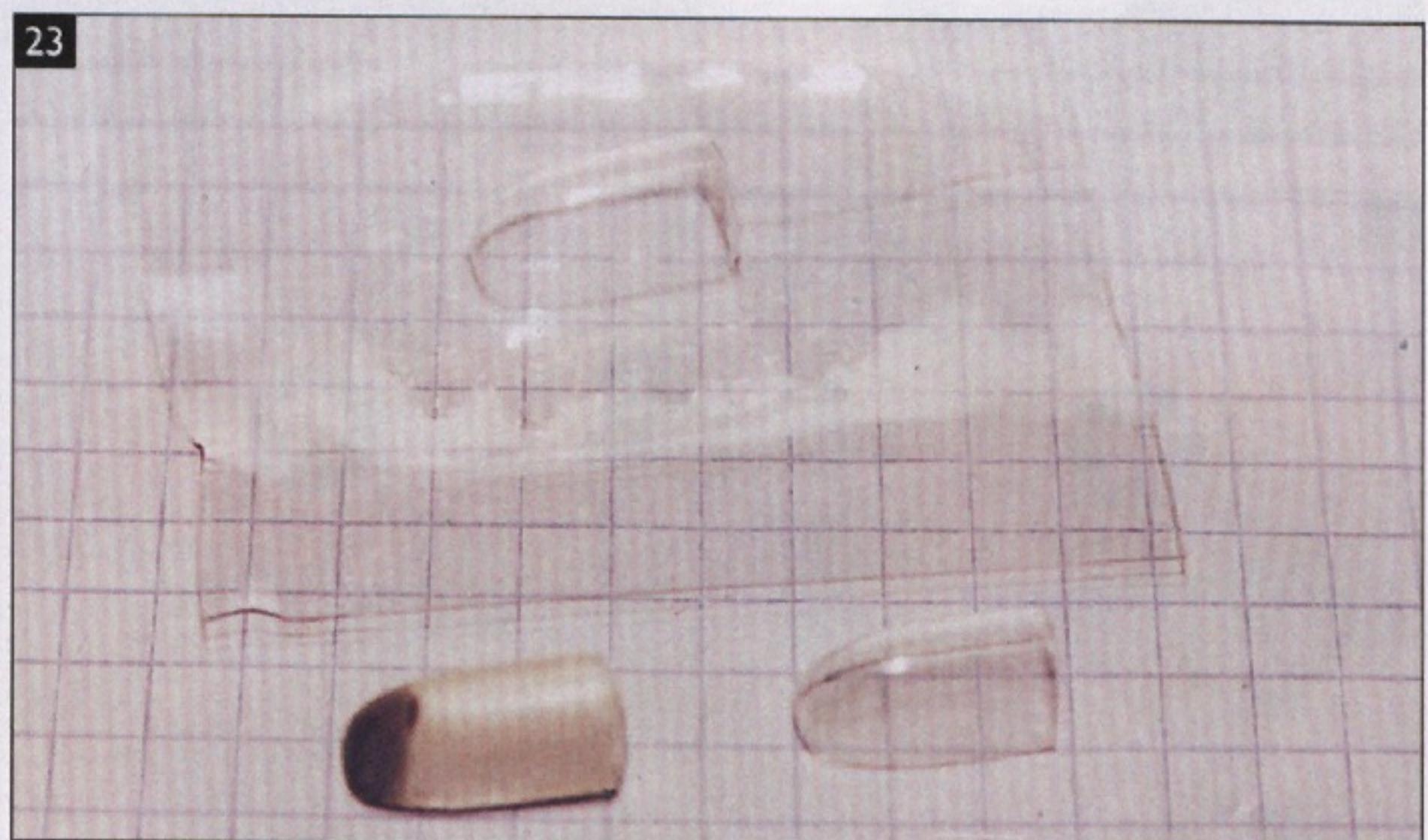
The prototypes had solid rubber tail wheels, see Figure 7 also



The XF4F-2 had an angled, flat plate wind screen



The XF4F-3 had a circular, unbraced wind screen



New canopies were vac-formed using the kit canopy modified with filler. Plaster of Paris was added to prevent distortion during the vac-form process. Shown is the XF4F-3 modification



provide more than ample material for this procedure. A short keel section was also added along the bottom of the wheel well opening.

The landing gear from the Airfix kit is too basic to use as is. As far as I can tell, the landing gear on the real Wildcat did not change at all throughout the production run, so any kit version will work if you are happy with the level of detail. I scratchbuilt mine from plastic and brass rod and tubing shamelessly using the Hasegawa kit as a guide (See Photo 19). The ubiquitous beverage can provided the material for the gear doors. Refrain from the temptation to box off the gear wells, the real Wildcat was wide open from side to side.

The tailwheel on the prototype was a small, solid rubber type. I constructed a new tailwheel from a sandwich of thin styrene sheet and can aluminium. (Figure 7). The

tailwheel itself was made using a circular disc and 15thou sheet (See Photo 20).

The canopy is different from the production models. Not surprisingly, it seems there are several options here also. Neither the -2 nor -3 had the bulletproof face plate. The -2 had

a V-shaped, flat plate windscreens, (See Photo 21) and the -3's was more rounded in the windscreens area. (See Photo 22). I could not find a suitable substitute, so I vac-formed new ones. I made a new mould, using the kit supplied canopy as a basis. I added filler to the

windscreens area to build it up to the desired shape. The modified canopy mould was then filled with plaster to prevent distortion from the hot clear sheet during the vac-forming process (See Photo 23). By using the kit part as the basis, you avoid any contour mating problems with the spine. Make sure to remove the kit frame lines by sanding and blending the filler well; any blemishes will show up on the new canopy. I used the plastic vac-formed packaging material from razor blades, flashlight battery, or similar item packages. This plastic is thin, readily available and often clear enough to use for small canopy applications. Plan to make several copies if you want to show off your cockpit details by having the canopy open. It is also nice to have a spare in case you damage the canopy while trimming it to fit. I made three of each version

Fabric Control Surfaces on Real and Model Aircraft

Real aircraft fabric is difficult to distinguish from metal at a distance. The fabric is painted with multiple coats of clear and pigmented dopes which produce a very smooth finish. No fabric weave pattern is visible if the painting is done properly. Unlike larger wing fabric surfaces, there is no perceptible sag between the ribs on most control surfaces. What you actually see on the real aircraft, are the rib stitch reinforcing tapes and surface tapes. They form a ridge barely 1/16in high, but they are noticeable under some lighting conditions. Unfortunately, fabric control surfaces are virtually impossible to replicate in a true scale manner (Figure 10). In 1/72nd scale, these 1/16in ribs translate to approximately 0.0008in. Given that most kits have this detail grossly oversize, the challenge to the scratchbuilder is significant. Nevertheless, since the ribs can still be seen in some photographs, we have all come to expect some type of fabric and rib detail. Since perception is reality, the dilemma of creating some type of rib detail must be dealt with. I have tried and discarded several techniques, before I finally settled on the following.

After marking the rib pattern with a pencil, lightly scribe the lines. Attach thinly stretched sprue to the rib lines with liquid cement. Trim the ends to the proper length. After the cement has dried, lightly sand the sprue until it is almost gone. Re-coat with liquid cement to blend the edges (Figure 11).

Admittedly, this can be a tedious process, and it is still over scale, however, I think it provides a fair representation of a tough-to-model detail.

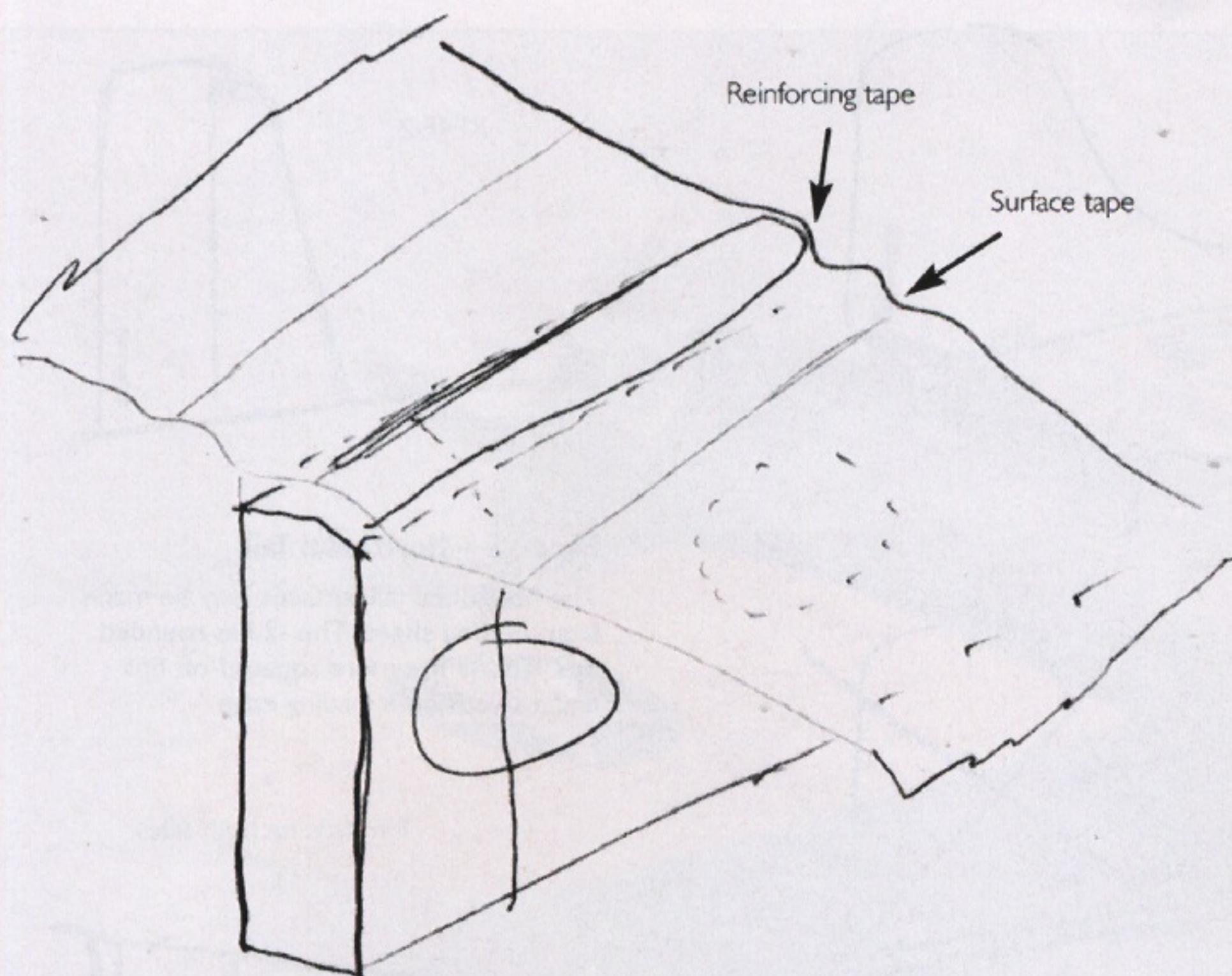


Figure 7

See side bar: Cross section of real aircraft fabric control panel.

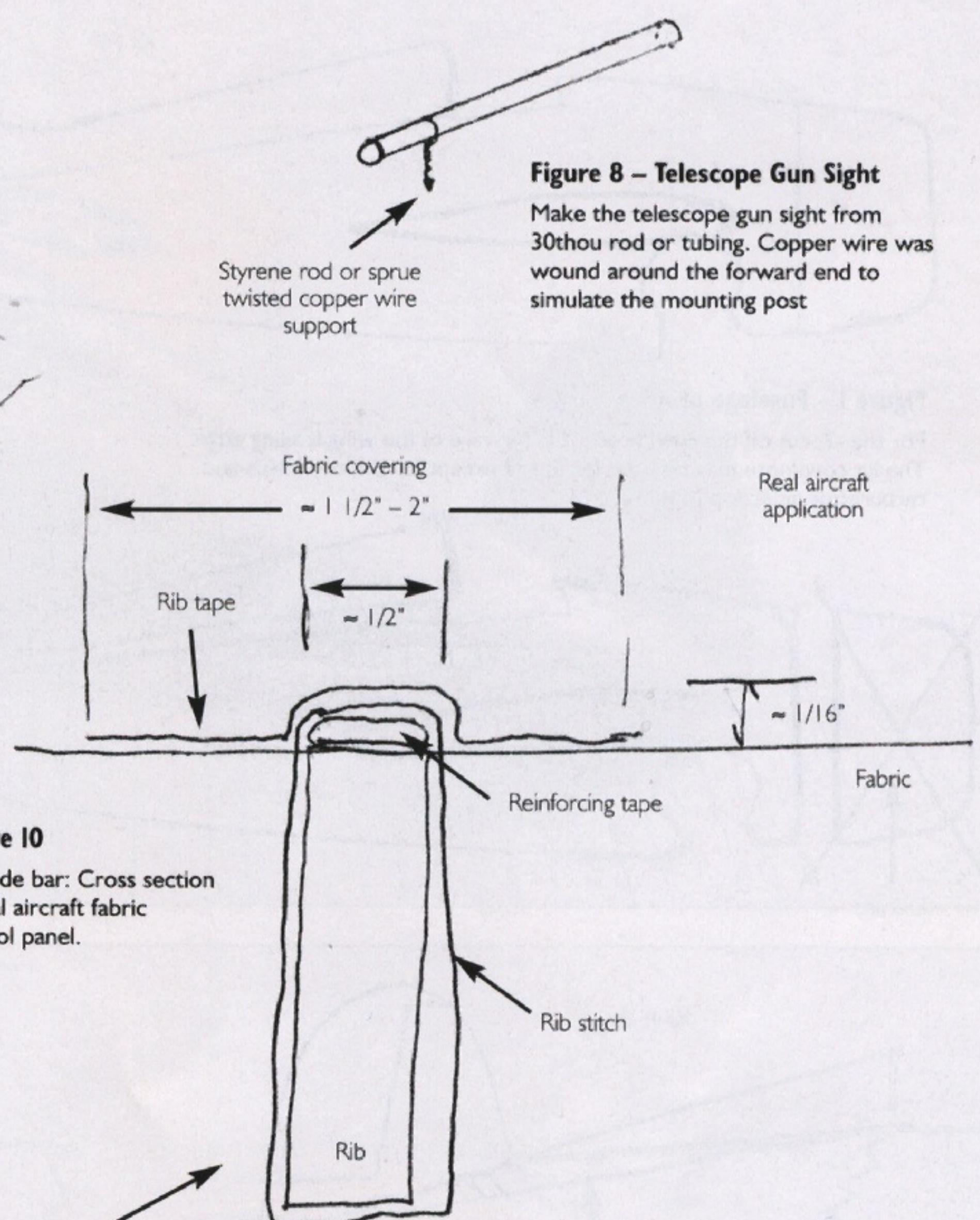


Figure 8 - Telescope Gun Sight

Make the telescope gun sight from 30thou rod or tubing. Copper wire was wound around the forward end to simulate the mounting post

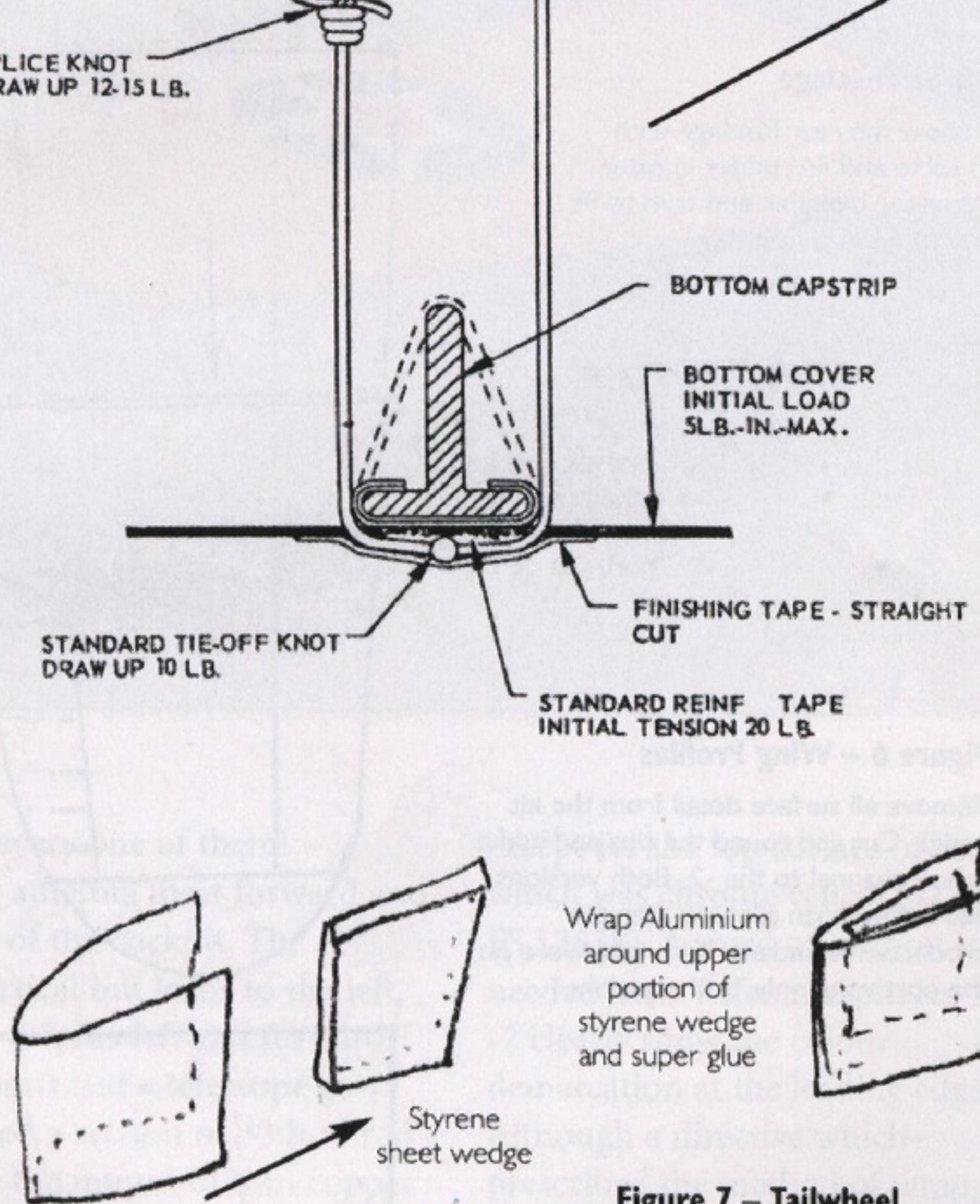


Figure 9

The tail wheel was scratch built using a sandwich of styrene and aluminium. The prototype had solid rubber tyres

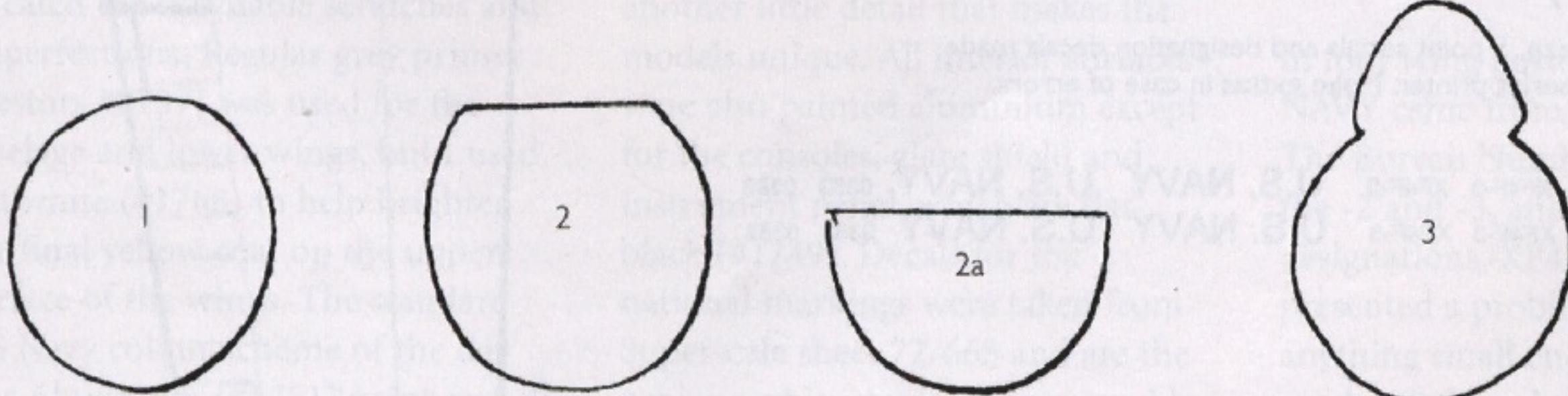


Figure 2 - Bulkhead Profiles

Make bulkheads from 40thou sheet styrene. The templates fit Airfix and Hasegawa kits. Use a more circular cross section for Academy, MPM and Frog kits

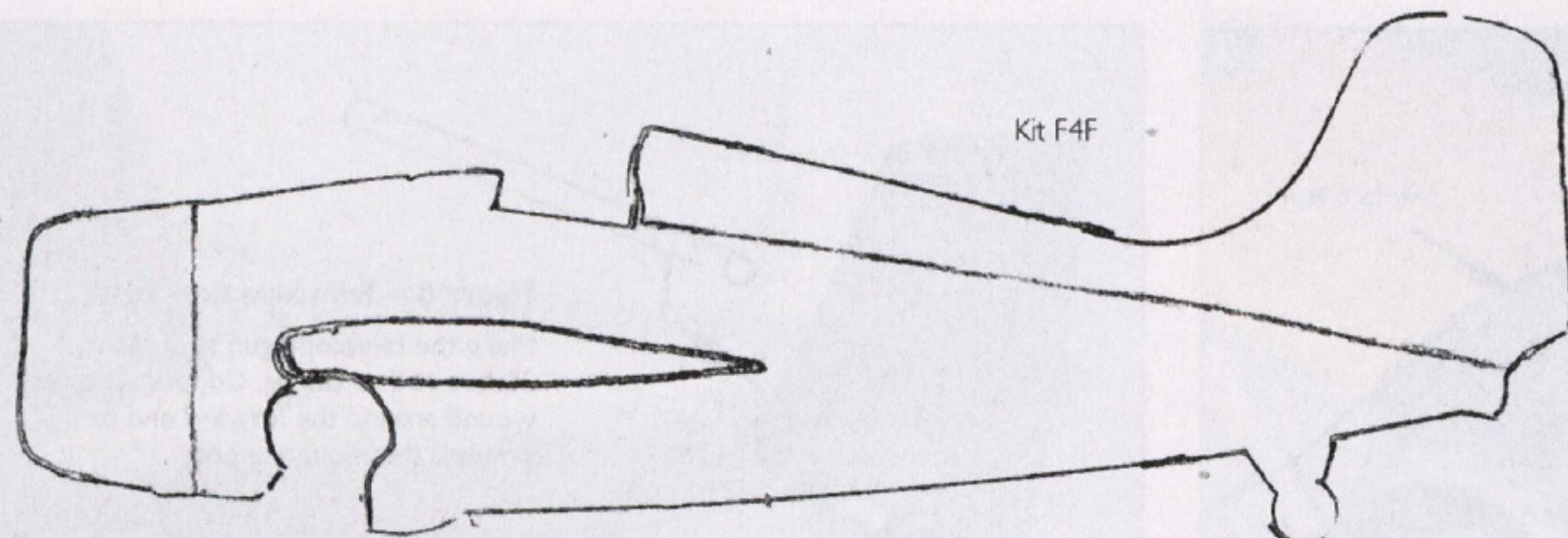
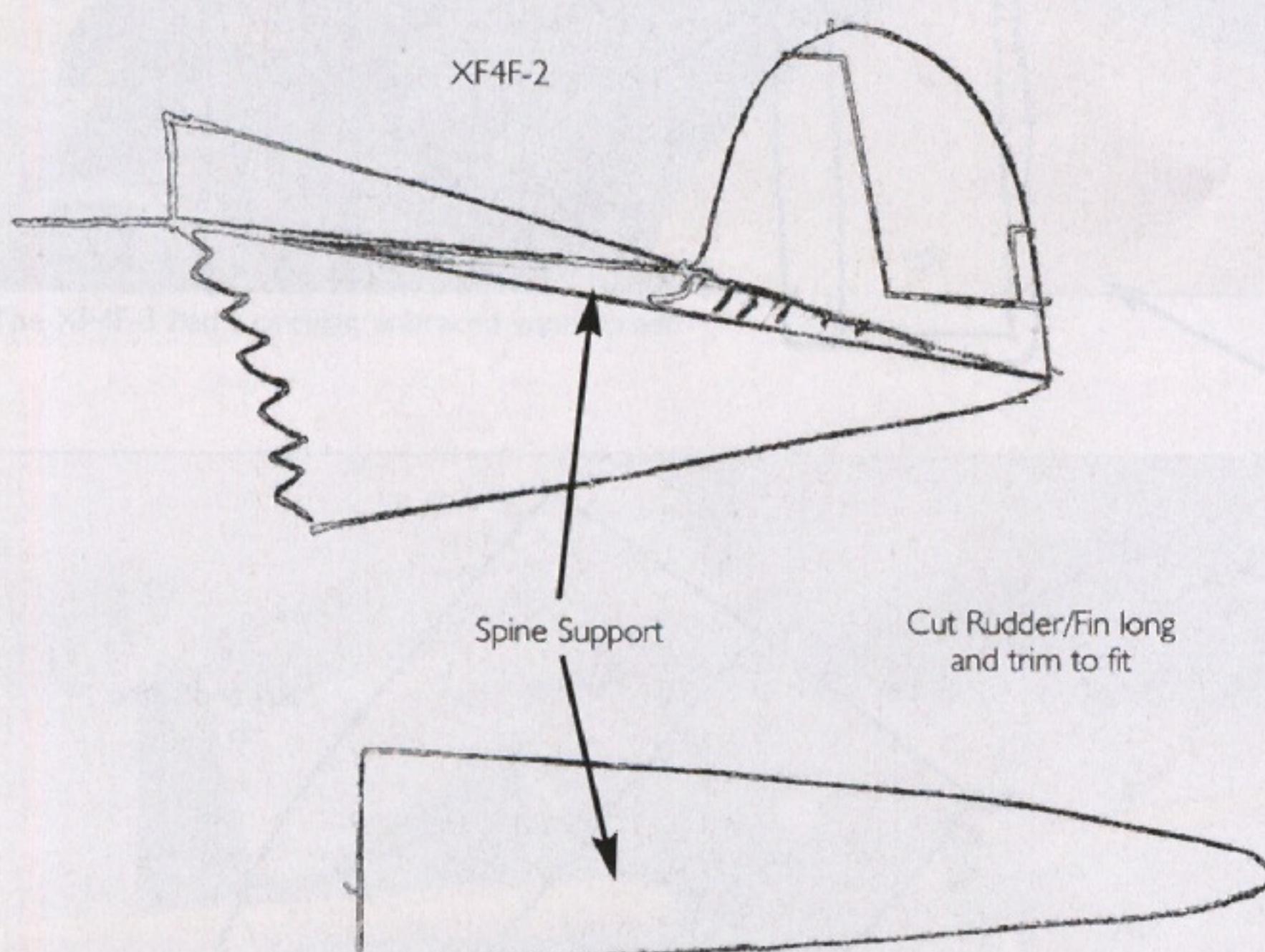
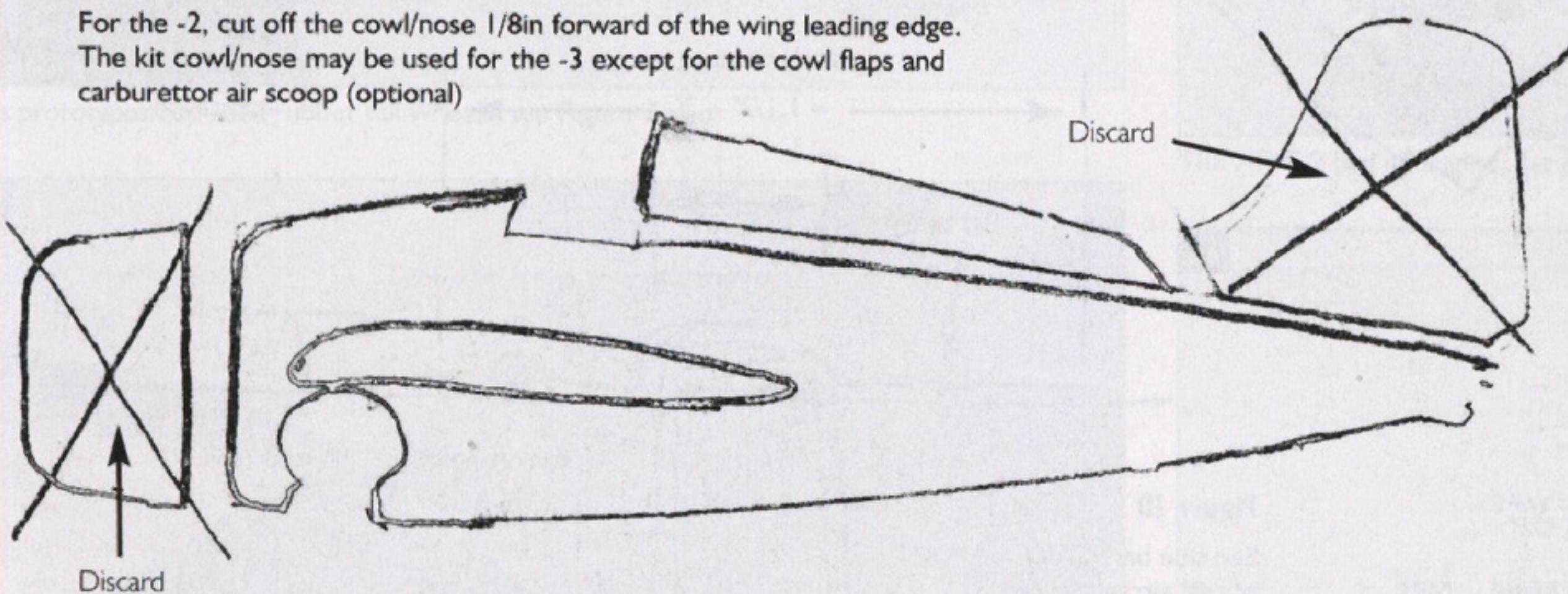


Figure 1 - Fuselage profiles

For the -2, cut off the cowl/nose 1/8in forward of the wing leading edge. The kit cowl/nose may be used for the -3 except for the cowl flaps and carburettor air scoop (optional)



Cut Rudder/Fin long and trim to fit

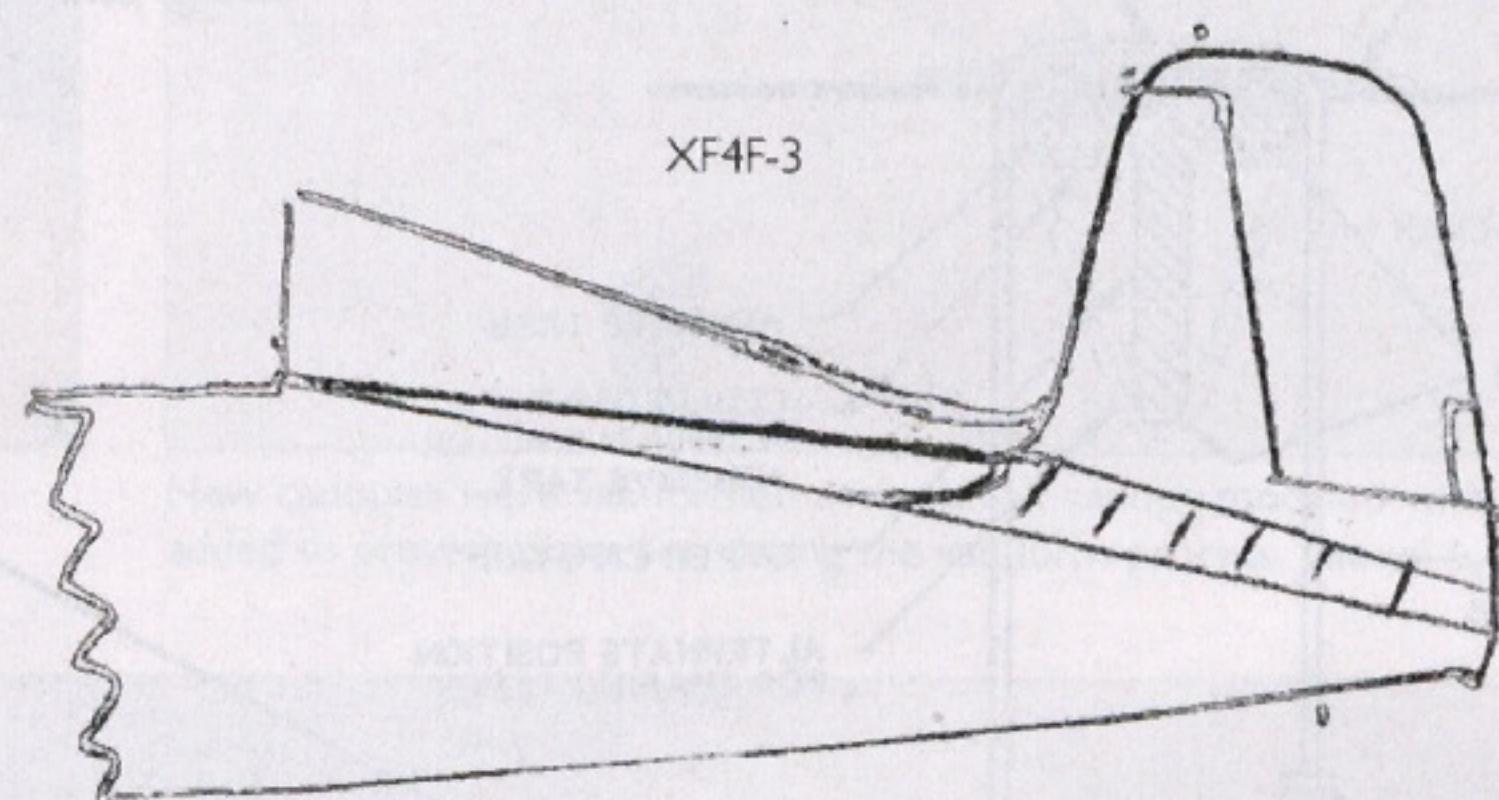


Figure 4 - Rear Fuselage

The profiles show the rear fuselage with the modified spine and fin/rudder in place. Make the fin/rudder oversize and trim to fit after the spine support is in place

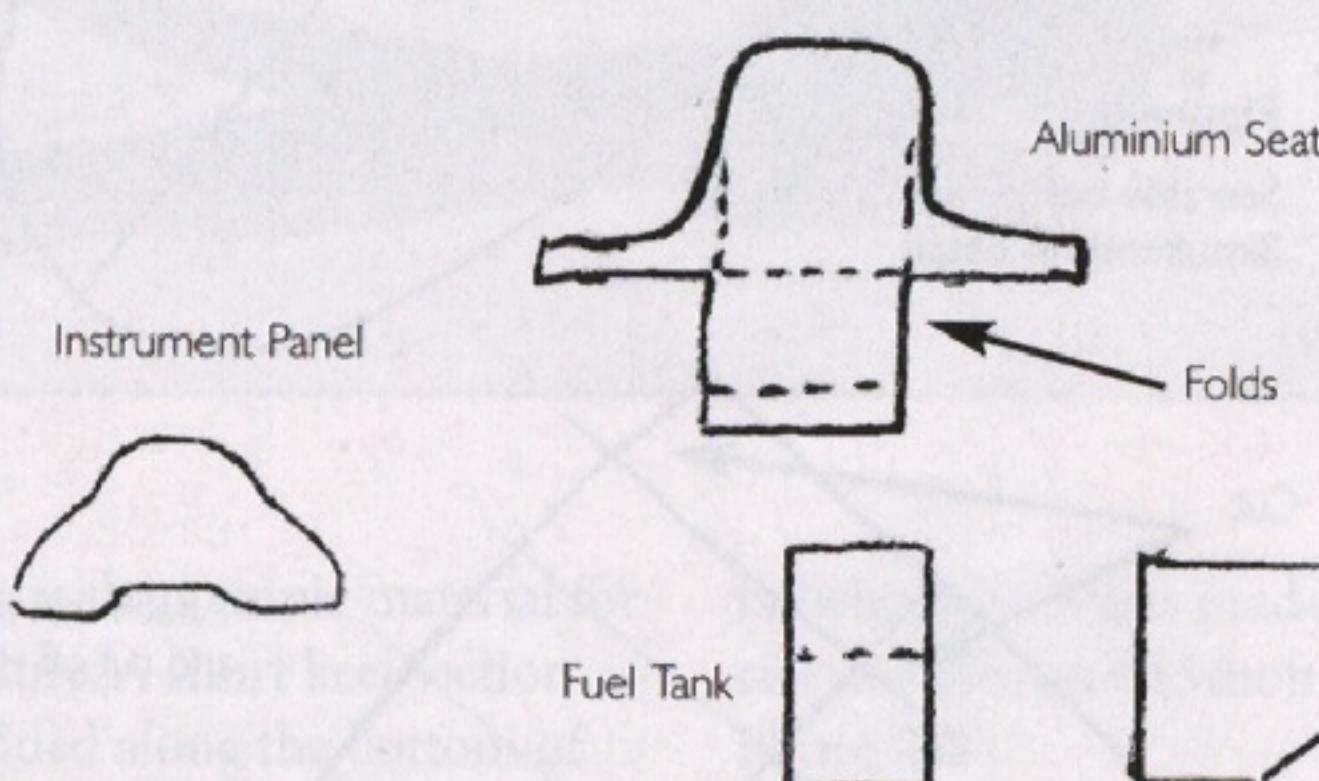


Figure 3 - Cockpit Details

The instrument panel and fuel tank may be made from styrene sheet. The seat and consoles were made from an aluminium beverage can

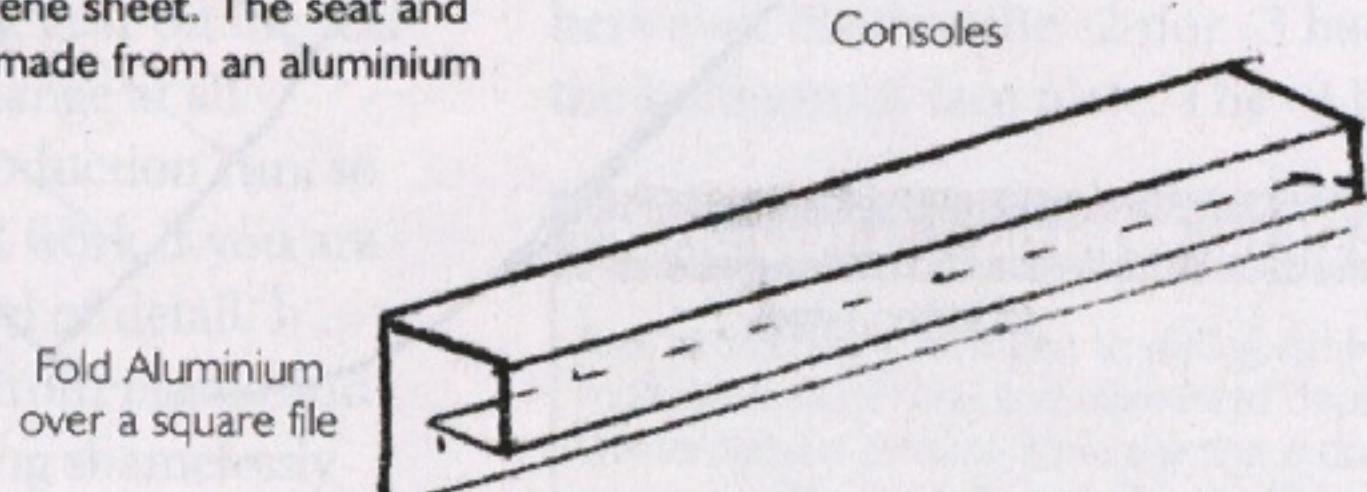
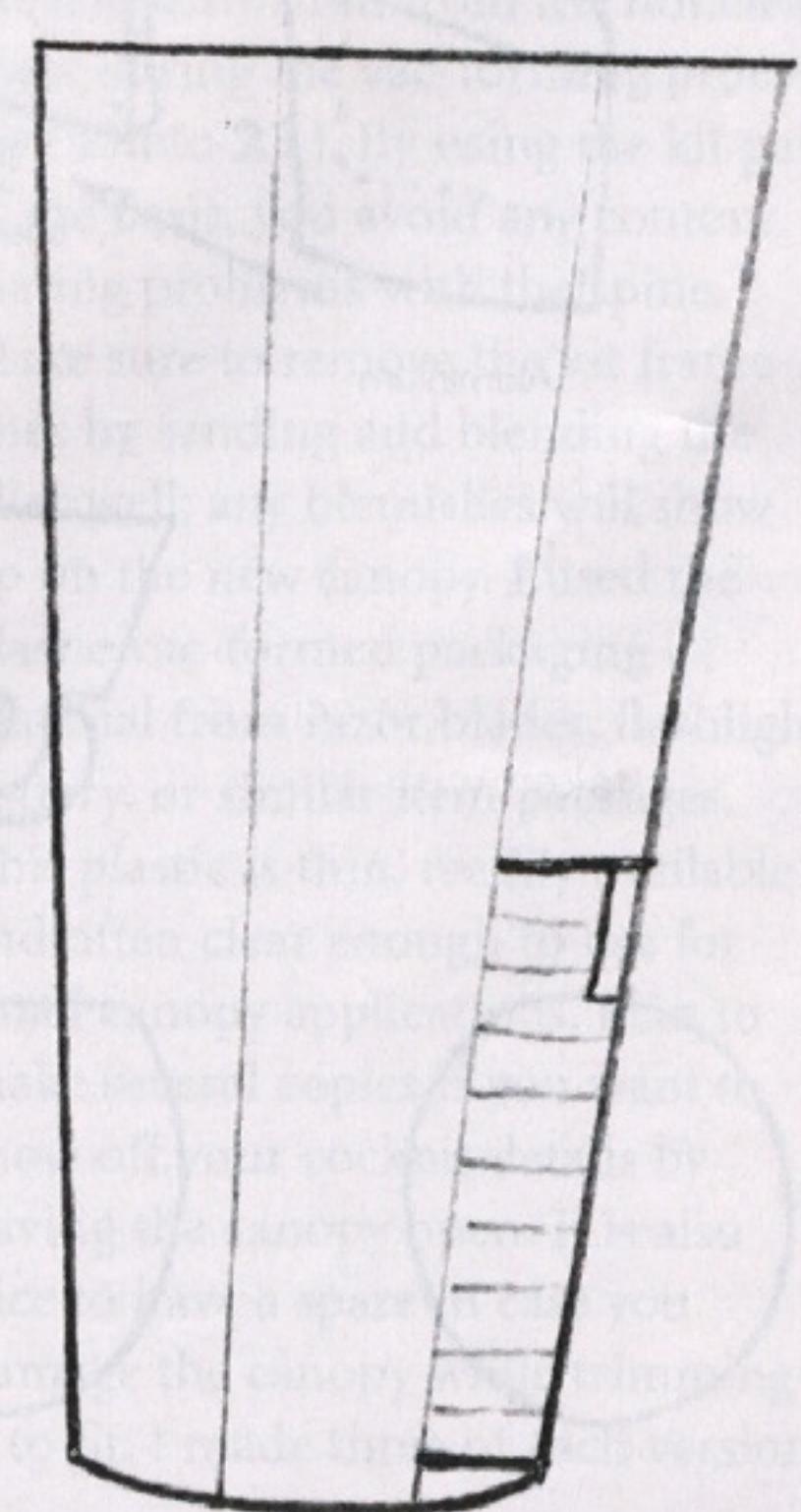


Figure 6 - Wing Profiles

Remove all surface detail from the kit wings. Cut and round the tips and add a 5thou channel to the -2. Both versions had longer span ailerons than the production standard. Trim tabs were on the port wing only, both versions

XF4F-2
Raised channel top and bottom
Note: Trim tab on port side only



XF4F-3
Note: Long span Ailerons and trim tab on port side only

Figure 9

Actual size, 5 point serials and designation decals made on a LaserJet printer. Make extras in case of errors.

XF4F-2 XF4F-2 U.S. NAVY U.S. NAVY 0383 0383 XF4F-3 XF4F-3 U.S. NAVY U.S. NAVY 0383 0383
XF4F-2 XF4F-2 U.S. NAVY U.S. NAVY 0383 0383 XF4F-3 XF4F-3 U.S. NAVY U.S. NAVY 0383 0383



and used every one of them!

Add an antenna mast forward and to the left of the cockpit. The -2 mast is vertical but leans to the left, while the -3 leans left and forward. Both versions had a telescope gun sight. I used a section of 30thou rod and made the mount of thin copper wire (Figure 8).

Step 5: Final Finishing & Colour Scheme

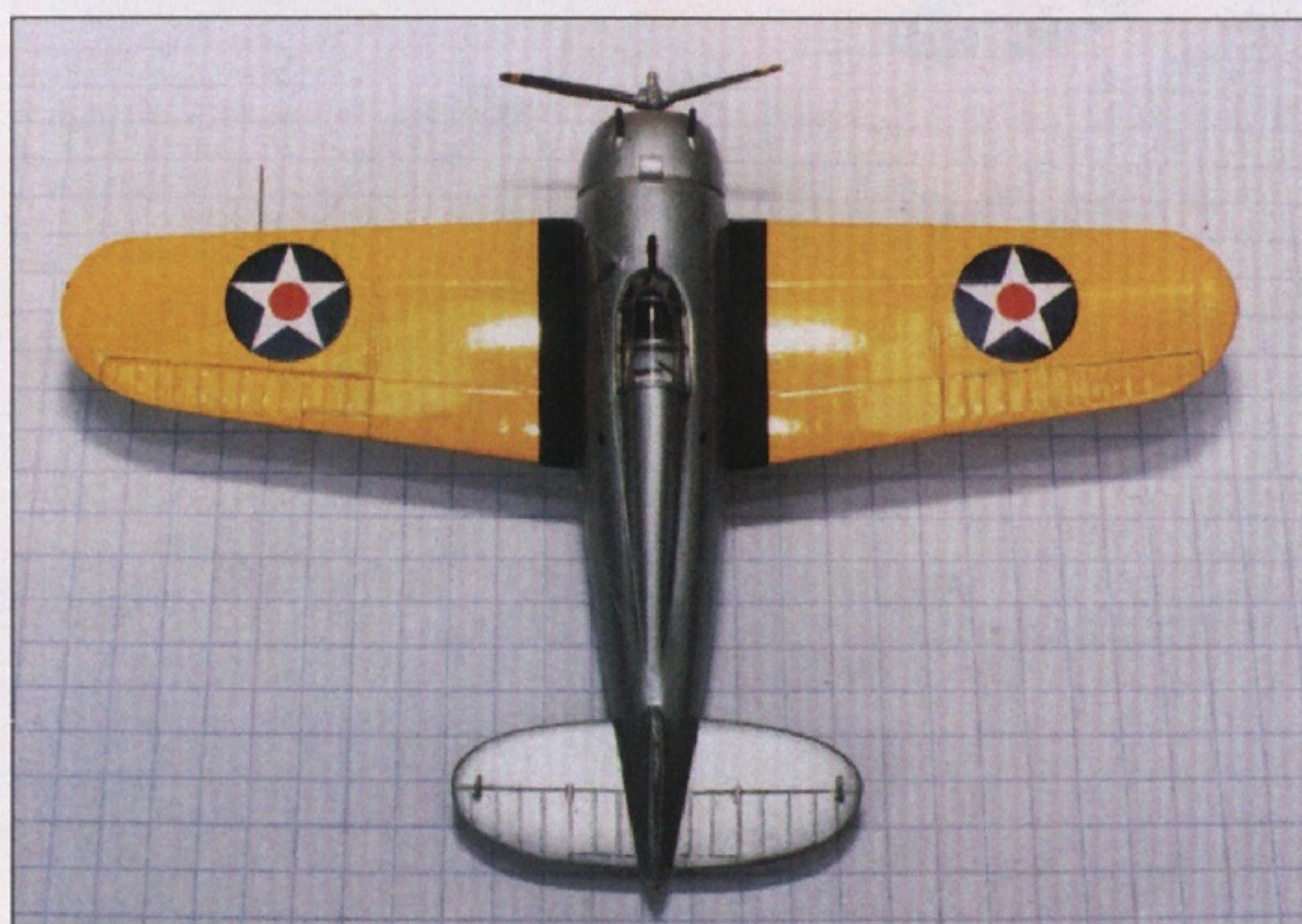
Testors Model Master Enamels were used exclusively. Due to all the sanding and filling, special care should be taken with a primer coat to catch the inevitable scratches and imperfections. Regular grey primer (Testors #2737) was used for the fuselage and lower wings, but I used flat white (#1768) to help brighten the final yellow coat on the upper surface of the wings. The standard US Navy colour scheme of the day was Aluminum (#1781) paint overall,

except for the top surface of the wing which was chrome yellow (#1707, FS.13538). A word of caution is needed here. Reference photos of the -2 clearly show the colour demarcation at the leading edge. Although a directive which prescribed the method of wrapping the yellow around the leading edge (5% of chord) was not published until 1940, some biplanes of the period, as well as the -3, were painted accordingly. Perhaps the directive validated what was becoming a common practice. In any event, it is another little detail that makes the models unique. All interior surfaces were also painted aluminium except for the consoles, glare shield and instrument panel, which are flat black (#1749). Decals for the national markings were taken from Superscale sheet 72-668 and are the pre-war white star/red centre on blue



in four wing positions. The black US NAVY came from the same sheet. The Bureau Number, 0383 for both the -2 and -3, and the model designations, XF4F-2 and XF4F-3, presented a problem. I did not have anything small enough for the model, so I used my word processor

and LaserJet printer to print out small 5 point letters on a sheet of clear decal paper (Figure 9). Although the font was not perfect and the black not as intense as a decal, I thought it was close enough for my old eyes. As a precaution, I coated them with liquid decal film



before application, and it worked great! Clear Testors Glosscote Lacquer was airbrushed overall before and after the decals were applied. Wing walks should be flat black. The miscellaneous hand-holds, ports and accents were made from black decal sheet or hand painted. The propeller markings came from the spares box for the -2, but I used my imagination for the -3. Some dabs of yellow and blue paint on a stripe of red decal did the trick. I have no idea if the colours are correct, but they add a nice touch. The propeller tips are marked in accordance with the then current regulations with 4in stripes of Insignia Red (FS.11136), Orange Yellow (FS.13538) and Insignia Blue (FS.15044), with red being the outermost colour. Close inspection of the photographs in my references show another anomaly in that the

rear faces of the propeller blades were not painted black as was the usual custom (and regulation). After attaching the canopies, the final details of hypodermic needle pitot tubes and 'invisible' nylon thread antenna wire were added. Other than some oil smears on the bellies, I would recommend weathering sparingly or not at all. I suspect these Wildcats were pampered kittens.

Brian M. Cooker

References

- Aero Detail 22: F4F Wildcat by Shigeru Nahara, Tommo Yamada & Masato Tanaka, ©1998.
- Air Enthusiast No.68, 'Corpulent Feline' by Ken Wixley, Key Publishing, Ltd., ©1997.
- Detail & Scale Vol.65: F4F Wildcat by Bert Kinney, Squadron/Signal Publications, Inc., ©2000.
- F4F Wildcat In Action, No.1084 by Don Linn, Squadron/Signal Publications, Inc., ©1998.
- Grumman F4F Wildcat, Warpaint Series No.9 by Glenn Phillips, Hall Park Books, Ltd., ©1997.

Alleycats and Wildcats in 1/72nd Scale

Listed below are the kits of the Wildcat and the year in which I believe they first appeared. There may be others but I do not have them in my collection. Likewise, other scale kits are omitted as I elected to collect only 1/72nd scale for space (and sanity) reasons.

Revell F4F-4 (1963)

- Dimensions: Length and span as close as it gets. Minor profile problems with the tail and the nose. The fuselage may be a little too wide in the waist.
- Detail: Very basic propeller and landing gear. Rivet detail is light considering its age.
- Features: Separate (but not accurate) top cowling-half reveals a basic engine.

Airfix FM-2/Wildcat VI (1964)

- Dimensions: Length and span are okay. The profile is a mess; the vertical tail is too narrow and too short, the cockpit opening is too long, and the cowling is too narrow and oval shaped.
- Detail: Very basic and crude in the engine, propeller and gear areas. Definitely needs help.

Frog F4F-4 Martlet Mk IV (1965?)

- Dimensions: Length approximately 7 scale inches too long, and it all appears to be aft of the cockpit. The span is approximately 4in too long.
- Detail: Raised panel lines, some HEAVY. Crude engine and heavy propeller cuffs.

Aoshima F4F-4 (1966?)

- Dimensions: Length about 7 scale inches too long. Span is okay. Wing chord about 6in too narrow. Horizontal tail too wide but easily trimmed back to correct shape. Cockpit rear bulkhead leans forward.
- Detail: Fine rivet patterns, moulded in engine cowling combination. Very basic overall.
- Features: Toylike folding (movable) wings and ailerons. At least the wings are pre-cut!

Academy F4F-4 (1987)

- Dimensions: If not a cleaned up set of Frog moulds, they were definitely based on the Frog model. Frogish engine and propeller, but finer raised panel lines.

MPM FM-2 (1994)

- Dimensions: Academy (Frog) moulds. This cat really gets around!
- Features: A new extra fuselage with recessed panel lines, a new engine, vac-formed canopy and Eduard photo-etched parts.

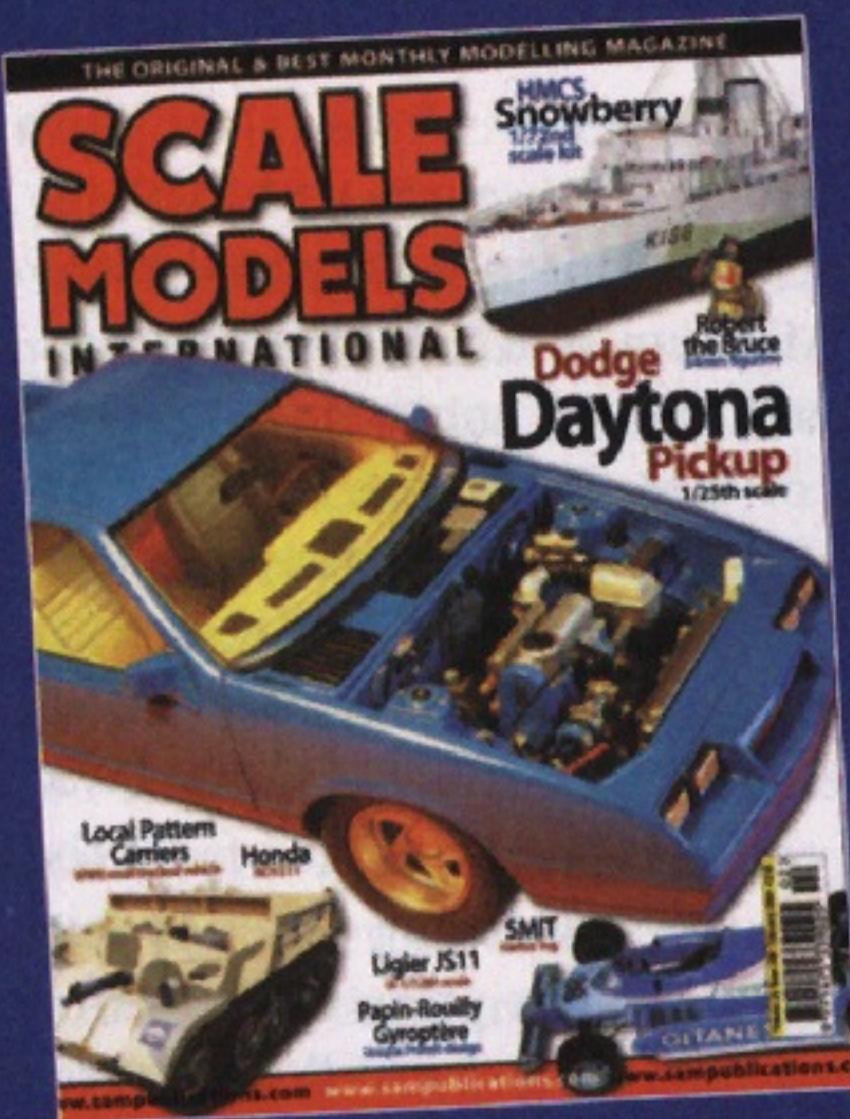
Hasegawa F4F-3, F4F-4, FM-1, Martlet II (1994-1995)

- Dimensions: Length and span right on. The canopy may be too narrow.
- Detail: Very fine surface detail. Crisp mouldings. Excellent quality. Pick of the litter!
- Features: Alternate guns and wing panel line guide for the -3 and a different cowl for the Martlet. Each 'version' has its own decal sheet. Very nice, state-of-the-art rendition.

Dragon F4F-4 (1995)

- Dimensions: Hasegawa moulds repackaged. (Do Wildcats have 9 lives?) Good choice!
- Detail: Extra parts equal to Hasegawa quality.
- Features: New extra set of pre-cut wings to enable spread or folded position. Carrier deck section for display.

Some of the oldest kits are probably difficult to find and may interest only a few collectors, considering their quality. The most recent kits are, thankfully, excellent and more likely to be available. My cursory evaluations are subjective and should be weighed against your individual threshold of pain. I used the dimensions and drawings in Warpaint Series No. 9, Grumman F4F Wildcat as my baseline reference. I consider + 6 scale inches (about 3/32in in 1/72nd scale) close enough. The overall proportion or 'feel' of the model is more important to me than precise engineering measurements. Even moderate detailing will often offset dimensional shortfalls. All of the above kits may be made into acceptable renditions of the Wildcat with varying degrees of work. Only a side by side comparison will show any differences. Decal evaluations were intentionally omitted due to the availability of many outstanding aftermarket replacement sets.



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book of the month

Heinkel He 162 Spatz (Volksjäger)

Price: £10.90 (+£0.60 UK P&P)

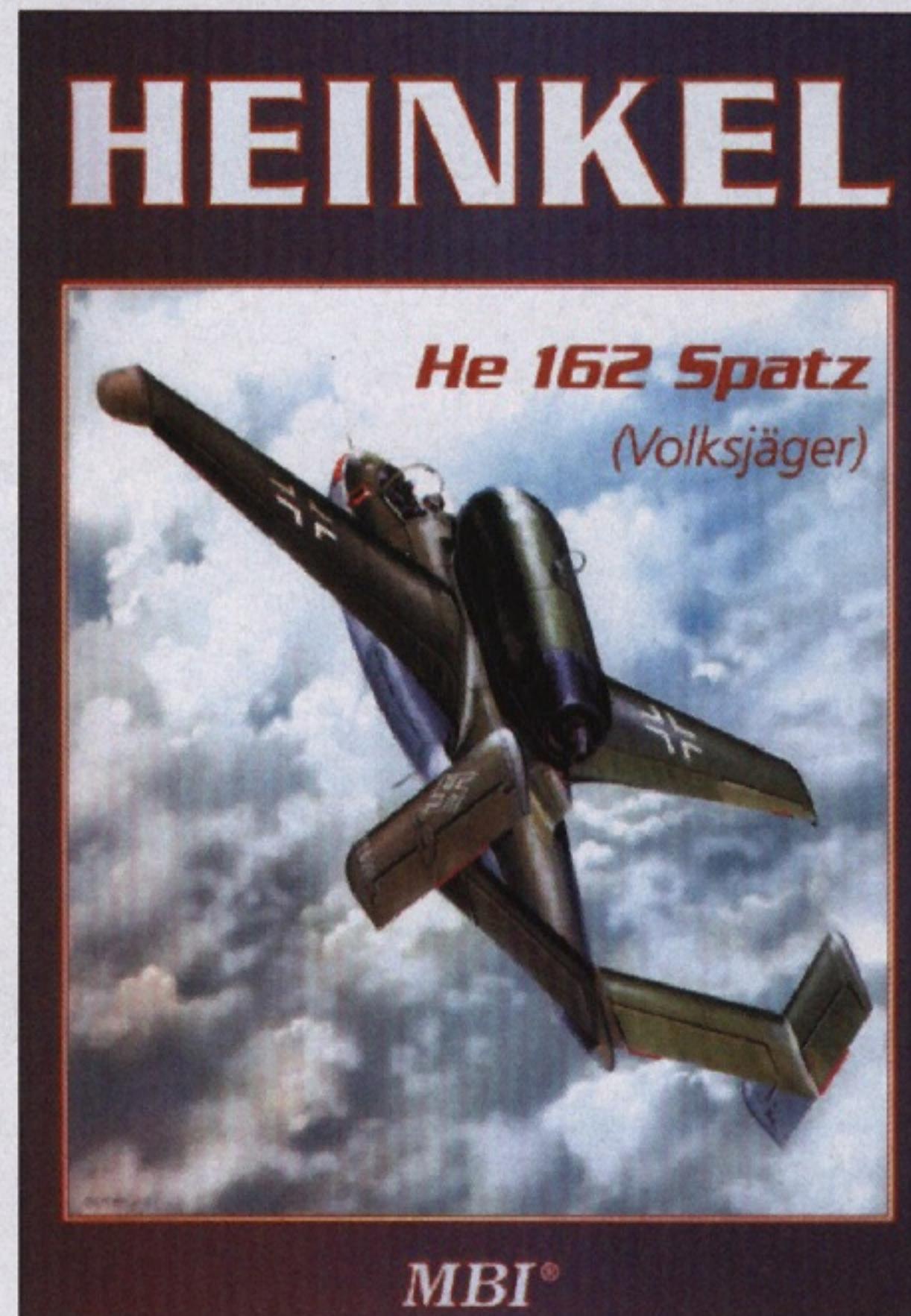
ISBN: 80-86524-06-X

Publisher: MBI

Format: 297mm x 210mm, 72 Page

Cover: Laminated Card

This is the most recent release in this Czech publisher's range. The narrative text is in both Czech and English. It is illustrated throughout with period black and white photographs, the captions of which are also in both Czech and English. The narrative deals with each stage in the development and service history of the Heinkel He 162, as well as looking at some of the projected versions of it. This starts with a look at the whole Volksjäger (People's Fighter) project and compares all the designs submitted to it. This includes the original Heinkel design, the P.1073, which was later revised to become the familiar shape of the He 162. The V1, V2, V3 & V4 prototypes are covered next, along with the pre-production 'M' series airframes. The next section deals with the production A-1 and A-2 versions, with sketches of the differences between each, some excellent scale planes and a nicely redrawn cockpit layout diagram. Projected designs are covered next with things like the pulsejet powered version and the well known Mistel 5 composite. This is followed by a look at



the brief combat use of the type by the Luftwaffe and then there is a big chapter dealing with postwar testing of the type by the Allied forces (Britain, France and Russia, but strangely not America?). The next section looks at preserved

examples in European museums with the examples at the RAF Museum, Imperial War Museum and Museum of Air and Space in France. It is here that you encounter lots of clear colour images of these machines, both inside and out, although none unfortunately with the engine cowlings open. The interior images are of the French example, as the RAF Museum does not allow access into its exhibits and the IWM machine is of course now suspended from the roof at Lambeth. The remaining pages of this title form a technical description of the airframe with lots of clear images and excellent diagrams and sketches covering all aspects of the construction and equipment of the He 162.

This is an superb title for the modeller, as it includes a mass of information on the type. With the release later in the year of a 1/32nd scale version from Hasegawa and Revell and existing 1/48th and 1/72nd scale versions from Dragon I am sure that this will prove a popular title with Luftwaffe modellers, and we can therefore highly recommend it to them. Our thanks to Czech-Six Publications for the review sample.

bookshelf

Petlyakov Pe-2 'Peshka'

by Peter C. Smith

Price: £29.95

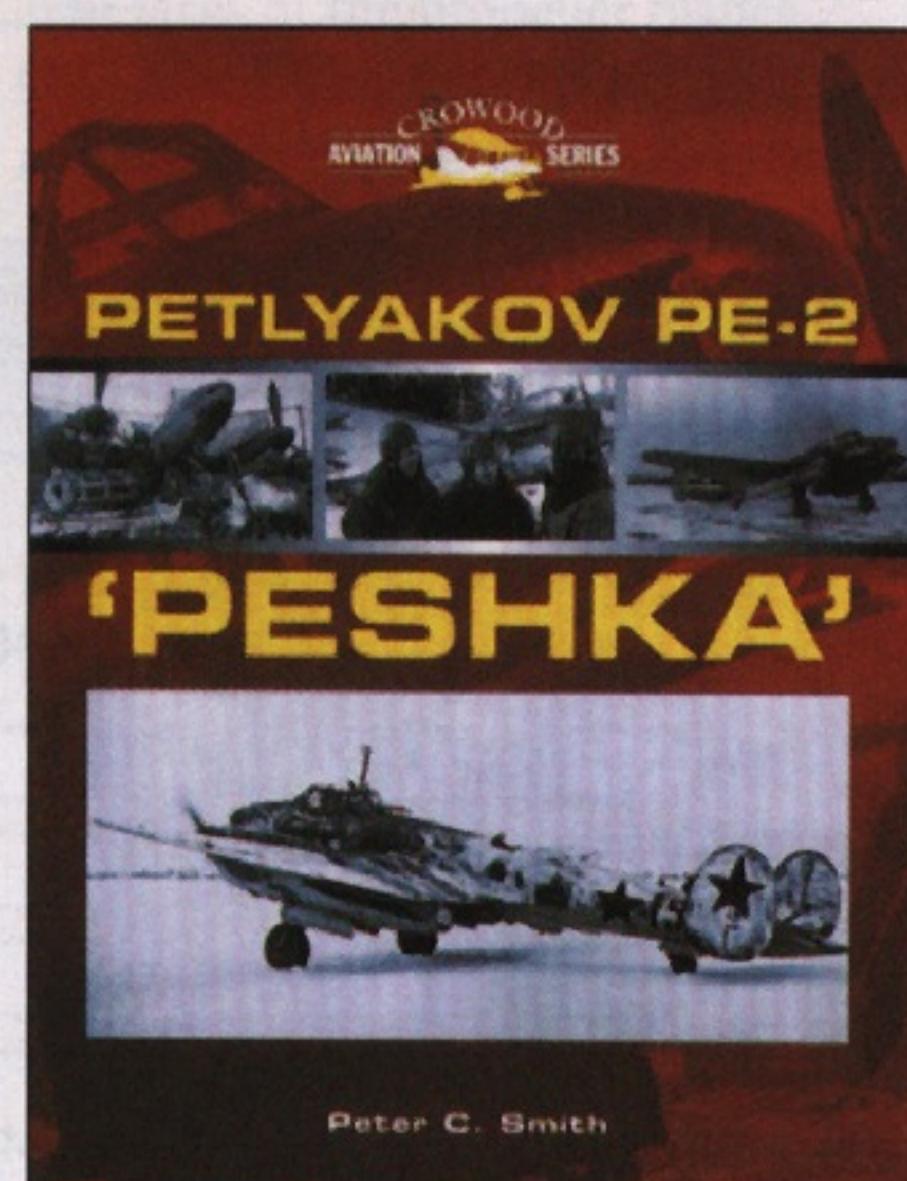
ISBN: 1-86126-588-3

Publisher: The Crowood Press

Format: 210mm x 297mm, 208 Pages

Cover: Hardback with Separate Dust Jacket

This is the latest addition to the Crowood Aviation series. It follows the usual style and format used by this publisher, using mainly black and white photographs with the exception of eight pages of colour in a centre section. This colour section is a bit unusual for a Crowood title, as it shows a lot of detail images in and around preserved examples, not shots of the type in service etc. These include some nice images of the example being rebuilt at Bødo in Norway. The narrative text deals



with all aspects of the development and operational use of the Pe-2 and starts with a background history of the designer as well as Stalin's purges of the pre-war period that led to his imprisonment! The next

chapter covers the various designs that came prior to the Pe-2, and this is followed by a look at how the Sotka design evolved into the Peshka (Pe-2). A more detailed look at the structure and systems of both the Pe-2 and Pe-3 follows before coverage turns to the operational use of the type in WWII. The seven chapters that follow look at all aspects of the type's service use in WWII and by chapter 15 you are looking at the use of the type in the Far East during the brief action against Japan by Russia in 1945. Chapter 16 looks at all the variants of the Pe-2 and 3 and this is followed by another chapter looking at the type's camouflage and markings. Chapter 18 looks at the final versions of the series and this is followed by a look at service in

Poland, Bulgaria, Czechoslovakia, Hungary, Yugoslavia, France and China. The final chapter is a detailed list of all Pe-2 and 3 airframes that are extant in Russia, Poland, Yugoslavia, Norway and Hungary. This title is concluded with extensive appendices that list all Pe-2 units, their commanders, Pe-2 aces, a glossary and additional notes.

This is yet another good title in this series from Crowood. It is probably a little more detailed than those that preceded it, and can be most highly recommended to all fans of VVS aircraft and the Pe-2 in particular.

Our thanks to Crowood Press for the review sample.

Focke-Wulf Fw 190 Vol. IV

by K. Janowicz

Price: £TBA

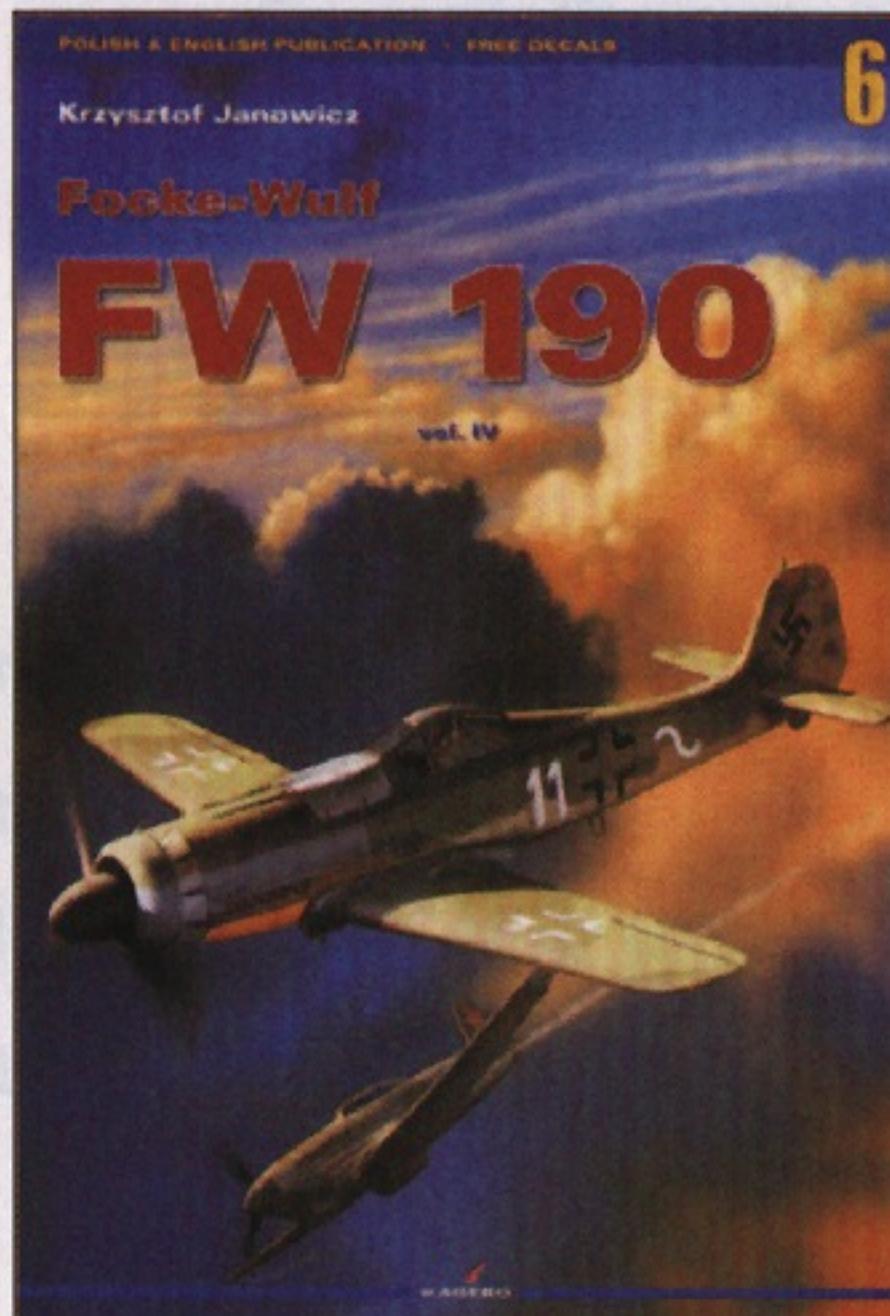
ISBN: 83-89088-32-0

Publisher: Kagero

Format: 295mm x 210mm, 96 Page

Cover: Laminated Card

Having reviewed their first volume on the Fw 190 back in the November edition (See Vol. 9 Iss. 11) it is strange to find that the next one released is entitled volume IV? As usual with Kagero, this title includes a free decal sheet, offering both 1/72nd and 1/48th scale options. Basically this book, and the series, looks at a specific aircraft type with detailed coverage of each and every version. This second part of their coverage deals with the B, C & D series airframes as well as the Ta 152. The text is in both English and Polish, split into two columns on each page (the photograph captions are also in both languages). This narrative takes a quick look at the B series, then moves on to look at the



high-altitude C series, although neither of these series ever saw production or service. The D is next, followed by a similar quick overview of the Ta 152. The remainder of the narrative (about 1/3rd of the entire book) is taken up with charting the operational careers of both the D-series and

Ta 152. This section is packed with period black and white photographs although most of these have been seen before. The remainder of the title consists of scale plans and colour profiles. The former are very useful, being all in 1/48th scale, although some of the scrap views are in 1/24th scale. This section is followed by additional scale plans that clearly show all the airframe changes between each version. The colour profiles are in two sizes and consist of both side- and four-views. The last two options are also linked with the decal sheet, as they show the four options available on the sheet.

This is another excellent title and it is ideally suited to the aviation enthusiast and modeller and highly recommended to all Luftwaffe fans. Our thanks to Kagero for the review sample.

books in brief

AVG 'Flying Tigers' 1941-1943

by Andre R. Zbiegniewski

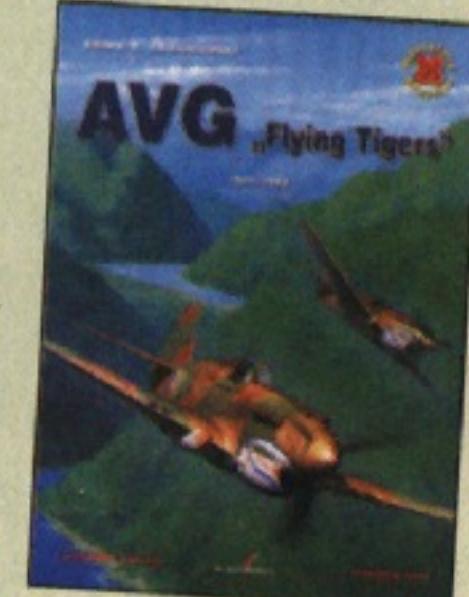
Price: £TBA

ISBN: 83-89088-28-2

Publisher: Kagero

Format: 170mm x 240mm, 80 Page

Cover: Laminated Card



Comment: This is the twenty-eighth title from Kagero and is somewhat thinner than the rest, now being in the thinner 80 page format instead of the 112 previously seen. The coverage remains in the same vein, charting the history, aircraft and men of the AVG throughout the 1941 to 1943 period. As usual, Kagero have included an extra item, although in this set this consists of a small etched brass detail set for the P-40B. This fret has been produced by Part, and comes complete with an acetate film for the instrument panel. There are excellent colour side profiles on the inside front, back and outside back covers as well as a stunning fold-out section in the middle which gives schemes for nine aircraft in total.

This is another excellent title from Kagero, well up to the high standard we all expect and with the amount of interest in the AVG and early P-40s at present, one that we can certainly recommend to all.

Saab Gripen

by Gerard Keijser

Price: £19.99 (\$32.95)

ISBN: 1-85780-137-7

Publisher: Midland Publishing

Format: 215mm x 280mm, 144 Page

Cover: Laminated Card

This is the latest addition to Midland's 'Aerofax' book series and it deals with Sweden's latest frontline fighter, the Gripen. The narrative charts the development of the Gripen design through to its first flight in 1988 and all the subsequent development work. The scene is initially set by a look at the abortive B3La project (which looked like a Aeromacchi AMX) and the development of the JAS

(Jakt, Attack and Spanning - Fighter, Attack and Reconnaissance) requirement that led to the Gripen. The problems encountered by the early Gripen prototypes are well known, but mainly centred around the onboard computers and fly-by-wire technology. All of this is covered in this title, as well as showing how much of it was overcome. There are chapters that deal with specific aspects like the airframe systems, engine, weapons and radar, all of which have a mass of colour images and diagrams in them. There is also a very detailed section on the cockpit and ejection seat systems with good colour images of all the

Saab Gripen

Sweden's 21st Century Multi-role Aircraft



Gerard Keijser

Aerofax

various development stages of the former element. The last section of this title looks towards future use of the type with other nations and its development within the Swedish Air Force as a whole.

This is an excellent title and one that will prove very useful for all of you waiting for the 1/48th scale version due from Italeri this year, or those of you working on the old 1/32nd scale kit from Revell or the 1/72nd scale ones from Italeri. Our thanks to Midland Publishing for the review sample.

Flying Guns, World War I

by A.G. Williams & Dr E. Gustin

Price: £30.00

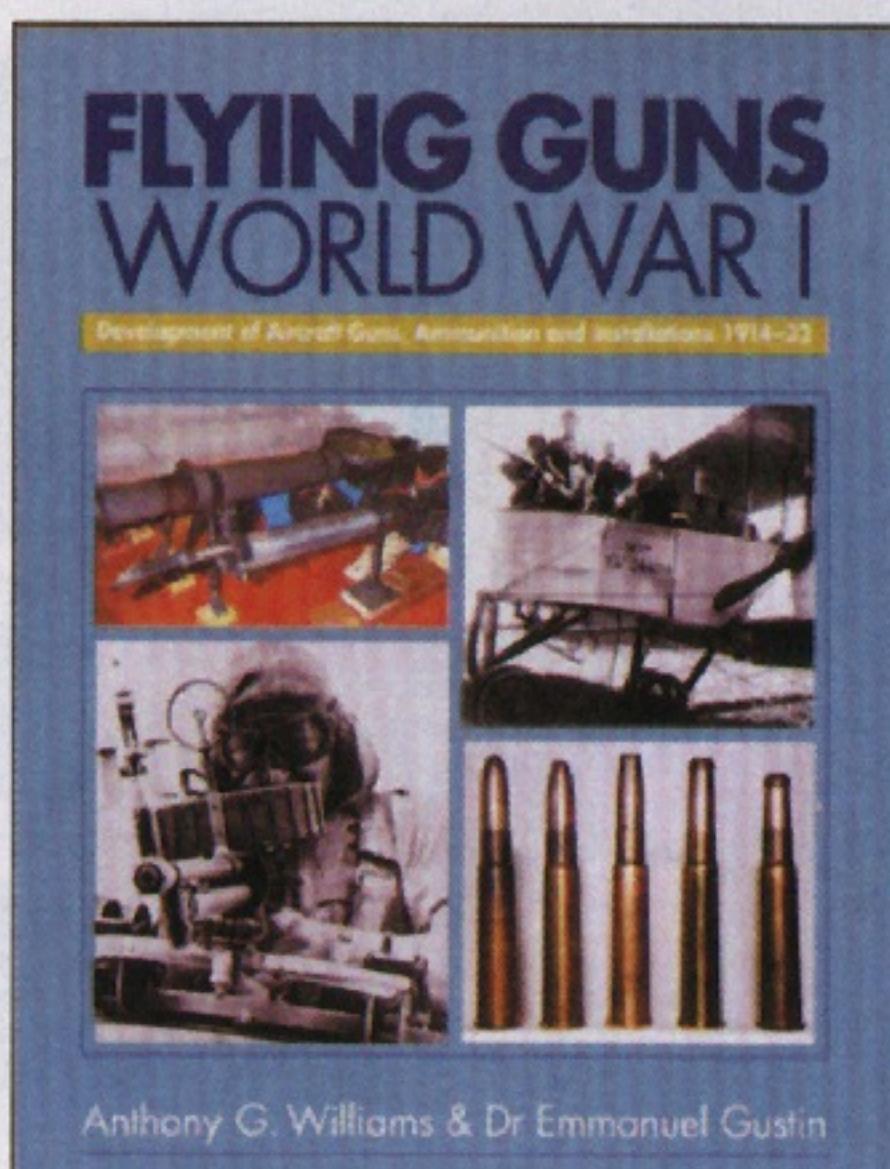
ISBN: 1-84037-396-2

Publisher: Airlife (The Crowood Press)

Format: 250mm x 195mm, 192 Page

Cover: Hardback with Separate Dustjacket

Many of you may recall the two-part set of books on WWII era guns, well at last Airlife (now owned by The Crowood Press) have released a similar edition on WWI era weapons. The title looks at the development of aircraft guns, their ammunition and installation. The narrative has been split into four main chapters and these deal with



technical developments, pre-war experiments and the First World War, aircraft cannon development and use (1914-1932) and the result of lessons learned in WWI and their effect on weapon development in installation in the postwar period up to 1932. Each of these chapters is well illustrated with period black and white photographs as well as diagrams from official publications. Every nation's work is covered and many of the accompanying images show weapons installed into various aircraft types. The book also contains four extensive appendices. The first of these is an exhaustive

list of armament fitment per aircraft type, then data on all the various ammunition types, followed by data on each gun and finally a selection of single side-view drawings of each gun type drawn to a constant scale.

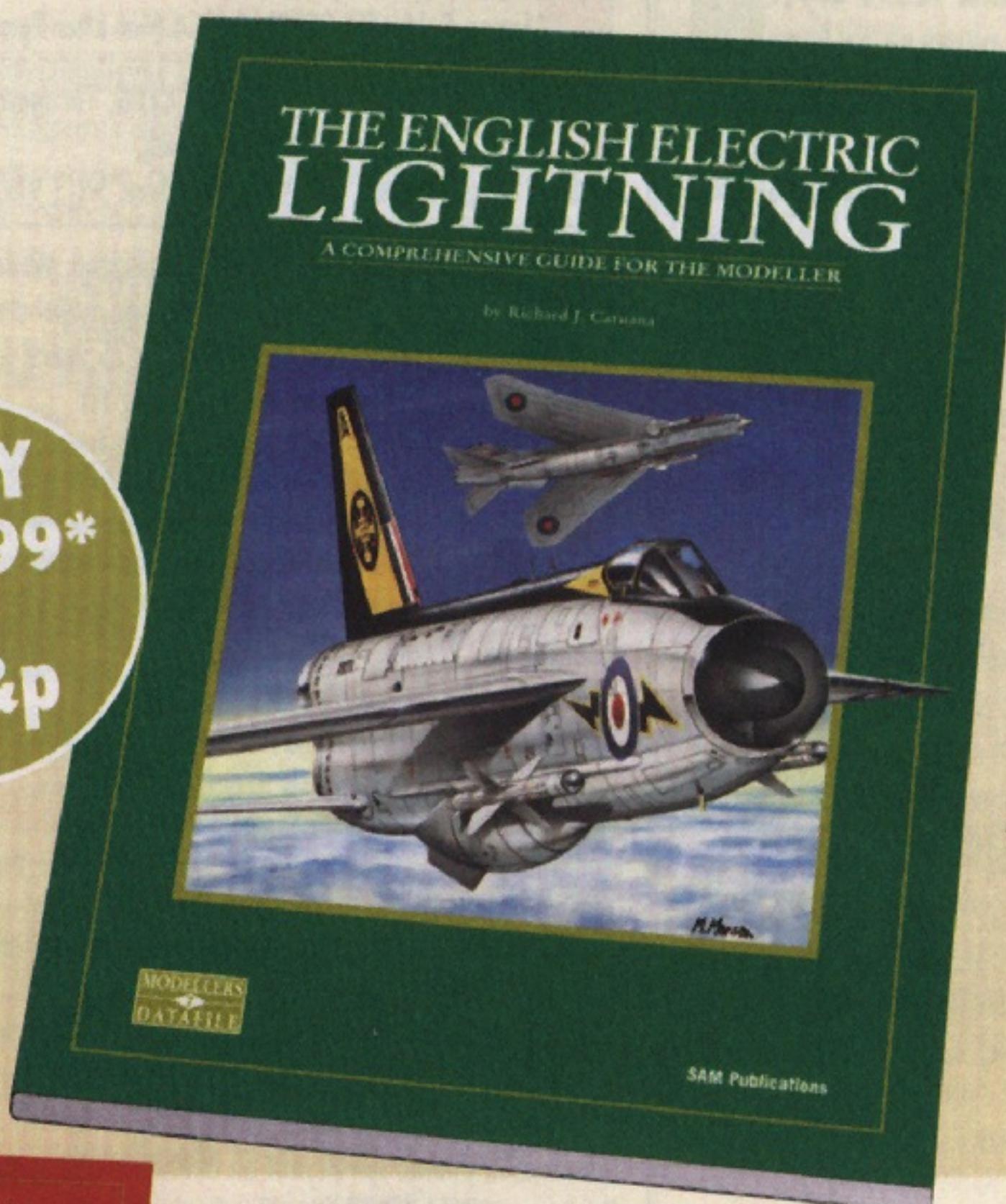
This is an informative title and one that many modellers will find useful. The technical data coupled with the photographic and diagrammatical information mean that it is ideal for modellers and aviation enthusiasts alike. Highly recommended. Our thanks to Airlife (The Crowood Press) for the review sample.

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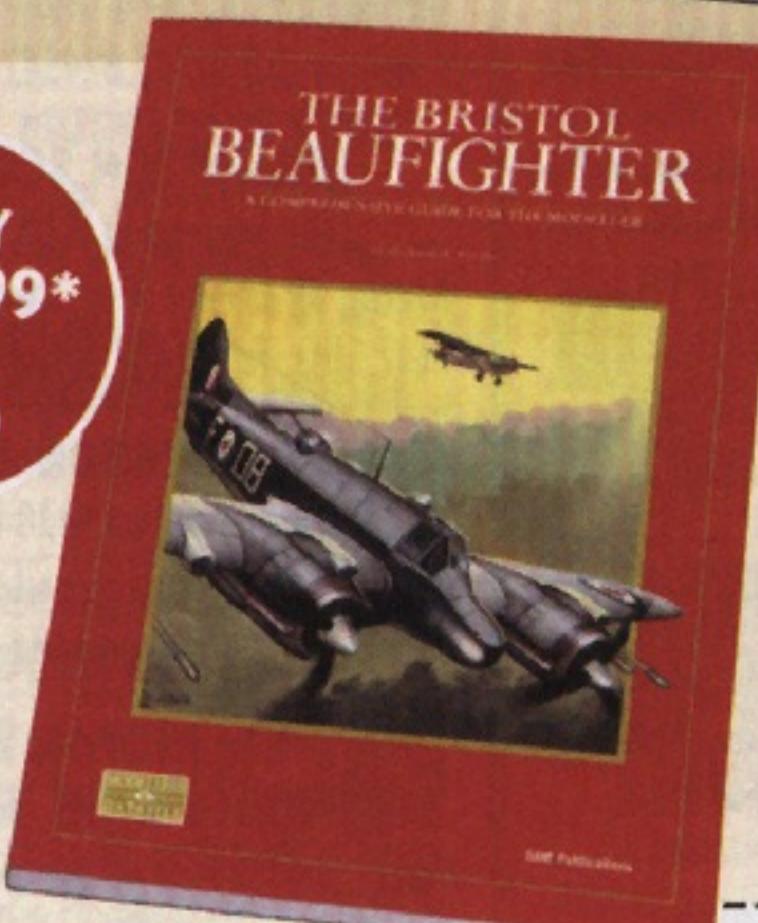


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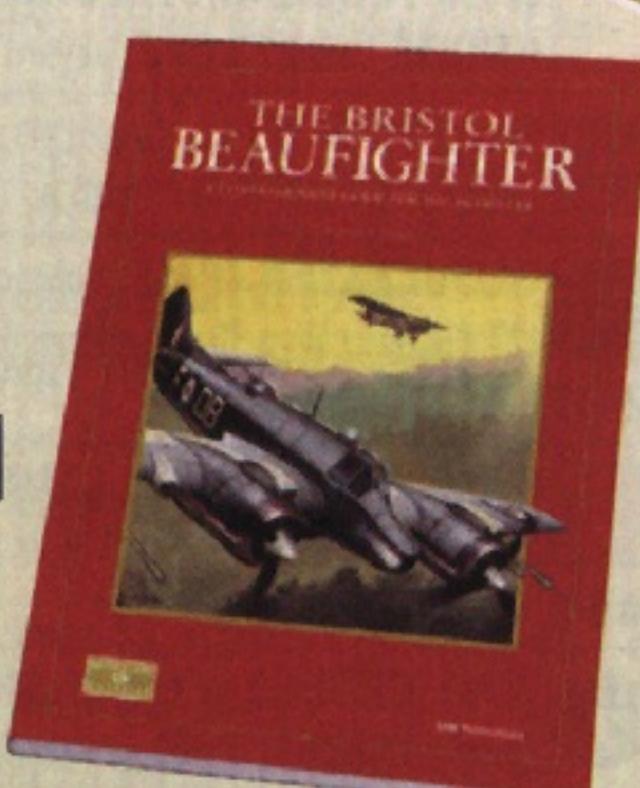
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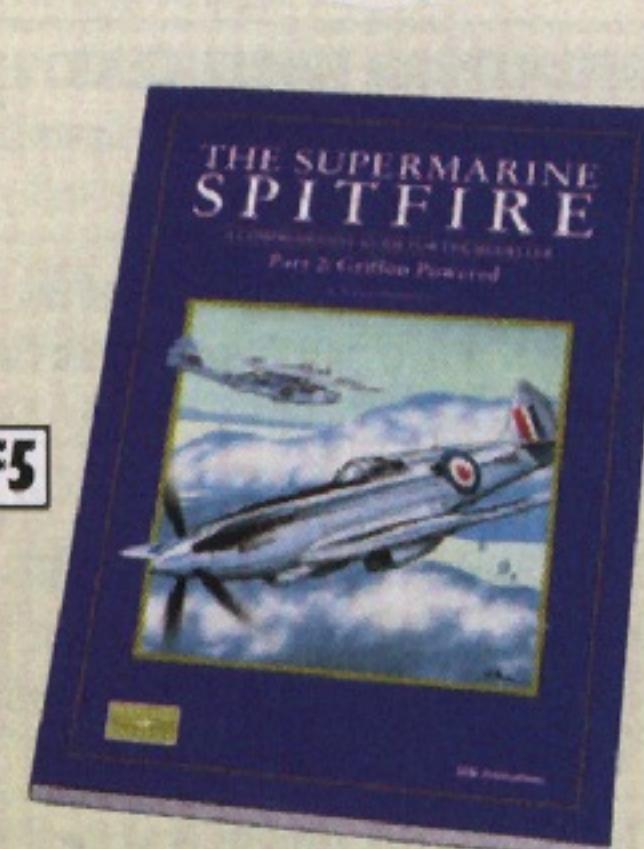
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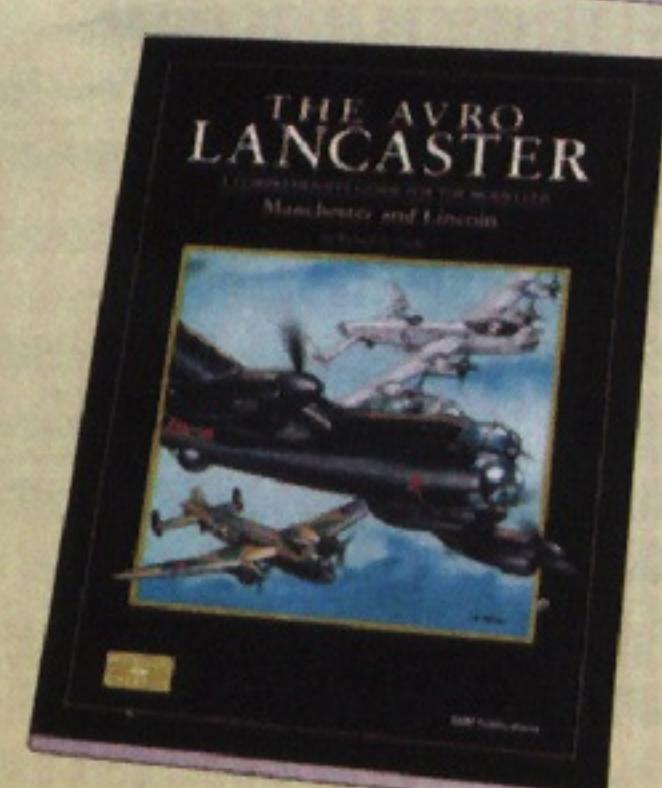
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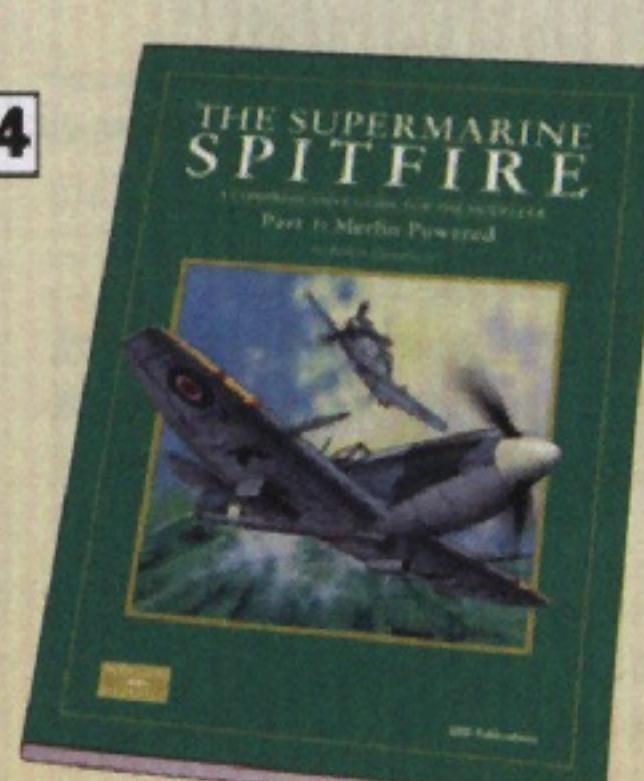
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clubs & societies



If you would like to attract more members to your club just write or fax the details to the editorial address so they can be added to this section, free of charge.

AAM/IPMS PORTUGAL. Please contact Antonio Neves Santos - R. Prof. Camilo Oliverira, 86A - 4420 GONDOMAR or Tel: 02 4540525.

THE ABERDEEN MODELLERS SOCIETY. Contact David Robertson, 27 Howes Drive, Aberdeen. Tel: 01224 690895.

ABINGDON IPMS. For information contact Simon Fisher Tel: 01993 774034 (not after 9pm).

AIRFIX COLLECTOR'S CLUB. For more information contact Jeremy Brook, 29 Elley Green, Neston, Corsham, Wiltshire. SN13 9TX.

ASVC Wombridge, Nr Wolverhampton. We lay claim to being the oldest established model club in the country, having been going for over 25 years! So we must be doing something right. Meeting 1st Saturday of the month at Allen Hall. Details from John Turner on 01384 78179.

IPMS AUSTRIA More information on our web site: www.ipms.at or contact Peter Havel, Maerzstrasse 127/46, A-1140 Wien, hape.ipms@gmx.at or Rainer Selisko, seli.ipms@gmx.at Fax +43 1 586 6215. Monthly meetings in Vienna, quarterly magazine Panorama, IPMS ScaleShop.

AVON SCALE MODEL SOCIETY - a small friendly modelling club meets on the 3rd Thursday of each month, at the Longwell Green Community Centre on the outskirts of Bristol. We cater for all types of modelling subjects, so if you think you would benefit from joining us, come along or for information phone: Ian Bryant on 0117 9324053 or Ray Hackney on 0117 9569777.

THE ASSOCIATION OF LONDON MODELLERS (inc. IPMS London). Meet between 7-9.30pm on the last wednesday of the month in the Camera Club, St. Brides Institute, Bride Lane, EC4. Contact Brian Lay 07813 908 938 or email BRIAN@asofmod.freemail.co.uk

AUSTRALIAN PLASTIC MODELLERS ASSOCIATION PO Box 51, Strathfield NSW 2135, Australia. Web site WWW.apma.org.au. Meet at Ryde City Bowling Club Auditorium, Blaxland Road, Ryde. Contact: Tel:(02) 98083215 email: sjjenkins@apma.org.au

AVRO LANCASHIRE IPMS. Contact David Thow on 01772 671368 or email idthow@tesco.net

IPMS AVON meets at the Rotunda Club (Avon Suite) on the third Wednesday of the month at 20.00hrs. For more details contact Phil, Tel/Fax: 01454 850119, Email: ipmsavon@aol.com

IPMS BELGIUM. c/o Filip Fraeyman, Sint Janstraat 4, B-8650 Moorsele, Belgium. Email: IPMSBelgium@pandora.be or visit www.ipms.be

BIRMINGHAM IPMS. For more details call 0121 550 0515.

BAY MODELLERS CLUB, Bay of Plenty, New Zealand. Contact Peter Cook on (NZ) 07-575-6517 or Email FI-SH@extra.co.nz

BANBURY SCALE MODEL CLUB. Contact Martin Aris on 01295 710150.

BARNET IPMS. Contact Pete Stern (Secretary) on 020 8449 7854.

UMS (UNIVERSITY MODELLING SOCIETY) BIRMINGHAM meets every Thursday at Centre 13 Community Centre, School Road, Moseley, Birmingham.

BLACKPOOL MODELLERS. Contact Darren Elliott on Tel: 01253 317265 or E-mail: darren@miramar55.freemail.co.uk

BOGNOR REGIS MILITARY Modelling and Wargaming Society is based at the West Meads Community Centre, Bognor Regis. It meets on Monday evenings from 7.30 and caters for all areas of military modelling. There is a very active wargames section catering for a wide range of campaigns. Pay us a visit or call 01243 824542 or 01243 814549

BRAMPTON SCALE MODEL CLUB (incorporating IPMS Brampton). Contact, Sam Bratby, 39 Ermine Way, Sawtry, Huntingdon, Cambs. PE17 5UQ. Tel: 01487 830689.

IPMS BOLTON. For more details contact David Swift on 01204 695375 or Ray Ashworth on 01204 669770 or e-mail the club at: ipms.bolton@btopenworld.com

BRIDLINGTON & WOLDS SCALE MODEL CLUB meets at the Parade Public House, Bridlington on the second Monday of each month. For more information contact Kevin Dolman 01377 255594 or Adrian Morris 01723 375962

IPMS (CANADA) LONDON. Contact Kerry Traynor on 1-519-453-4818.

IPMS CAPE PENINSULA (SOUTH AFRICA). Cape Scale Modellers Club. Contact Marc Cilliers Tel: 021 671 5595 or 083 444 9471.

CHELMSFORD AND ESSEX SCALE MODELLING CLUB. Due to unforeseen circumstances we have had to change venue. As from the first Thursday (6th) of November we will be meeting at The Horse and Groom Galleywood Common near Chelmsford, where we will have our own private room.

CHELMSFORD MODEL CLUB. Harway House, Rectory Lane, Chelmsford. Contact Michael Tel: (01245) 611548.

CHAPITRE REAL COTE (Montreal, Canada). For information contact Jean Marc Perreault. Tel: 450 659 5241 Email: jmarcp@megaweb.ca

CHILTERN SCALE MODEL CLUB. (incorporating IPMS Chiltern) meet first Wed. of every month at Shefford Memorial Hall. New members welcome. Contact John Chapman 01234 317763

THE CLACTON BRANCH of the IPMS. Contact Peter Terry on 01255 428653.

IPMS CLEVELAND. Contact: Mike Burns on 01642 592357 or Gary Stevenson on 01642 490589.

IPMS TYNESIDE meets at St. John's Church Hall, Newcastle-upon-Tyne the 1st & 3rd Monday of each month. Contact Rob Sullivan Tel: 01207 561971.

COVENTRY AND WARWICKS IPMS.

For more details contact Carl Lewis, Midland Air Museum, Rowley Road, Coventry Airport, Baginton. CV8 3AZ.

CORNISH SCALE MODELLER'S SOCIETY. For more details contact Tim Rowley (Chairman); 45 Bodriggy St, Hayle, TR27 4ND Tel: 01736 757945 or Alan Jennings (Secretary) 5 Collygree Parc, Goldsithney, TR20 9LY. Tel: 01736 710033.

DERBY CITY MODEL CLUB. Contact Gavin (10am to 6pm Saturdays) on 01332 757873 (Tel/Fax) or Julian (evenings) on 01332 514193.

IPMS DERBY & DISTRICT. New branch secretary: Nick Allen, 8 Oakwood Close, Stenson Fields, Derby. DE24 3ET

IPMS DEUTSCHLAND e.V. Contact: Volker Helms., Alte Dorfstrasse 26A, D-19065 Godern, Germany. E-mail: Volker.Helms@t-online.de. Home page: www.ipmsdeutschland.de

EAST KENT MODEL CLUB meets in Ramsgate. For details contact Stu Davies on 01843 867404.

EAST MIDLANDS MODEL CLUB. Contact Gordon Upton on 01455 230952 (day) or 01455 878722 (evenings).

EAST NEUK MODELLING CLUB For more information contact Brian on 01334 652439. 655131 or Dave on 01334 652439.

EAST RIDING SCALE MODEL ASSOCIATION meets every second Monday in the month at Beverley. Anyone interested should contact either: Richard Alsop 01482 711300 or Tony Bolder 01482 566008

IPMS ESSEX/HARLOW. For details and an information sheet, please ring Steve Hubbard on 020 8514 3840 or 0860 228194.

EASTERN SUBURBS SCALE MODEL CLUB (ESSMC), Box Hill, Vic, Australia. For more details contact Pete McKinnon, 61 + 3 9725 5480 or write to: 33 Clegg Ave, Croydon, Vic 3136, Australia.

FAMAS (Frog & Airfix Model Aircraft Society) Please note that this society's activities have temporarily ceased. Merv Hambling the founder states that the Sept/Oct 2003 edition (Vol.8/No.5) of their journal will be the penultimate one until some time after March 2007, when pressure of work and other commitments will have reduced to such an extent that he can once again relaunch the society. Everyone on the current mailing list will be recontacted once the society restarts. Anyone wanting to be added to this list, or any of you who are members and change address in the interim should contact Merv at 29 Ridge Way, Cromer, Norfolk. NR27 0HS. In the meantime anyone with an interest in Airfix products, can contact the Airfix Collectors' Club via Jeremy Brook, 29 Elley Green, Neston, Corsham, Wiltshire. SN13 9TX. Email: jezbrook@btinternet.com

IPMS FENLAND/SPALDING MODEL GROUP. Contact Dave Hawkyard 01775 720568.

GLASGOW IPMS. Non-IPMS members welcome. Contact Bruce Smith on 0141 563 2098.

GLOUCESTER IPMS. Contact Jeff Brown, 123 Pleasant Way, Beeches Park, Cirencester. GL7 1BZ. Tel: 01285 659254.

GRANTHAM MODEL CLUB. Contact John Tinkler on 01476 870816 or Craig Gardiner on 01476 401483.

IPMS GREECE (CORFU BRANCH) Contact 0030 661 41506 or Fax 0030 661 41114.

GUERNSEY PLASTIC MODELLERS GROUP. Contact Dave Nash, 7 Pierre Percee Villa, Prince Albert Road, St Peter Port, Guernsey. GY1 1EZ. Tel: 01481 728186.

THE HARROW MODELLING SOCIETY. Contact Roger on 020 89976051 for more details or visit www.harrowmodellingsociety.co.uk

HOBBY DEPOT MODELER CLUB Contact M. Fuller, 1524 Est Summer St., Hartford, WI 53027, USA.

IPMS HORNCHURCH. New Club Secretary; Dave Ryan, 36 The Lintons, Linton Road, Barking, Essex. IG11 8HS. Tel: 020 8594 4670.

ISCA SCALE PLASTIC MODEL CLUB - East Devon. Contact Mr K.Sweeting 10, Old Barn Close, Stoketon, Exeter, Devon. EX5 4AD.

IPMS KENT. For full details please contact Ken Withey, 8 Belmont Road, London, SE25 4QF Tel: 0208 654 8531 Email: kenwithey@btinternet.com.

i IPMS KINGSTON (CANADA). Contact Tony on 389 4878.

i IPMS PROVINCES OF FRANCE. The URL for IPMS Provinces of France changed to <http://www.multimania.com/ipmspdf/index.htm>

i IPMS SOUTH AFRICA. For further details contact Colin Burgess on 011 462 3549 or Email albertrin@global.co.za or visit or Web site at www.kimberley.co.za/Ipmsa.

IPMS SOUTH EAST LONDON please ring Paul Brack on 020 8650 6504 or Alan Partington on 020 8697 6929.

IPMS SOUTHAMPTON. For more details contact Nigel Robins on 02380 582808.

i IPMS STE HELENE (Montreal, Canada). For information contact Jean Marc Perreault. Tel: 450 656 7243.

i IPMS TORONTO (CANADA). Contact IPMS Toronto, 3219 Yonge St., Suite 334, Toronto, Ontario, M4N 2L3, Canada.

IPMS WESSEX. For more details contact Karen Robins on 02380 582808.

i IPMS YU-VOJVODINA (Yugoslavia). Contact Nenad Miklisev, Bulevar Velika Vlahovica 56/10, 23000 Zrenjanin, Yugoslavia. Email: modelart@ptt.yu

JUNIOR MODEL CLUB, Midland Air Museum, Baginton, Coventry. For more information contact Dianne James. Tel: 024 76301033

KEMPSTON & DISTRICT SCALE MODELLING CLUB. Meet twice a month on alternate Tuesday evenings at Southfield Community Centre, Kempston, Beds at 7pm. All welcome, irrespective of skill levels. Contact Tony Issott on 01234 852780

KING'S LYNN SCALE MODEL CLUB dealing with all aspects of modelling. We meet on the second Wednesday of the month in the 'Workers Club' in King's Lynn at 19.30. For more information ring Mike Condra 01553 827126 or David Crump 01553 673744.

LINCOLN MODEL CLUB (IPMS Lincoln). For more information, contact Ian Crawford on 01522 533380.

i KAIMAI BRANCH IPMS (NZ). Contact Peter Cook at bmc-ipmsnz@xtra.co.nz or Tel: 07 5756 517

KEIGHLEY PLASTIC MODEL SOCIETY contact John on (01535) 665722.

LEEDS IPMS. Meets 2nd Friday each month at Netherton Working Mens Club, Netherton Lane, Netherton, Wakefield. Contact Mike Robson on 01484 350612. Microbel00@ntlworld.com

LOTHIAN MODELLERS CLUB and Edinburgh IPMS. For details contact Ian Hanratty on 0131 665 4087.

i MARITZBURG MODELLERS CLUB, South Africa. Contact Andy Williams 0331-961-850 or Alan Farre 0332 306446.

MANCHESTER IPMS Contact Karen Cunliffe on 0161 343 5475 or Bernard Chadwick 01942 675277 for discussions or further details.

MEDWAY MODELLING CLUB, Gillingham, Kent. Contact Harry Greenwood 01634 829531 (daytime) or Bill Clark 01795 426686 (after 7pm).

i MEIR MODEL CLUB, Meir Community Centre, Meir, Stoke-on-Trent, meetings every Wednesday 7-10 pm. For more details contact Alan Ewart (Tel: 01782 388892) or Cliff Kelsall (Tel: 01782 543026).

MERCIA SCALE MODELLERS (incorporating IPMS Mercia). For more information contact Simon Mepstead, 7 Pembroke Way, Nuneaton, Warks. Tel: 02476 745551.

MERSEYSIDE SCALE MODEL CLUB (IPMS) meet 1st Tuesday of the month at Royal British Legion, Crosby Road North, Waterloo, L22 0LG.

MILDENHALL PLASTIC MODEL CLUB. Meets 1st & 3rd Wednesday each month in British Legion Club, High Street, Lakenheath, Suffolk, at 8pm.

MILTON KEYNES MODEL CLUB. Contact Phil Smith on 01908 505988.

i MODELLSPORTCLUB HANS GRADE Berlin, c/o Mr. B. Schurak, Lindenstr. 8, D-15831 Wassmannsdorf, Germany. Visit www.msc-hansgrade-berlin.de or e-mail SSchurak@aol.com

i ALLROUND MODELLING Society Eeklo. The Modelbouw Eeklo website has changed from www.ping.be/modelbouw-ekelo to <http://users.compaqnet.be/modelbouw.ekelo>.

i IPMS NENE VALLEY. For more details contact Dan Richards on 01733 572898.

IPMS NORTH NORFOLK MODEL GROUP. For more information contact P. Pegg on 07760 433734.

NORFOLK SCALE AIRCRAFT MODEL GROUP (Norwich). For information call John Turner on 01603 890595.

NORTH ESSEX MODELLERS. Ring Eric Dyke on 01206 823413 or Mark Harris on 01206 842694 for details.

NORTH SOMERSET MODELLERS SOCIETY. For more information ring Fred Tooke on (01934) 416798.

NORTH STAFFS MODEL CLUB. Contact Stefan on 01782 618181 or Phil on 01782 544612 for details.

NOTTINGHAM AND DISTRICT IPMS. Contact James Downham, 17 Quantock Close, Nottingham, NG5 9QA or Tel: 0115 2696799

i NUCLEO DE MODELISMO DE ESPINHO Rua 8, No. 931, Espinho, Portugal. Please contact Jose Ferreira on 351 22 7310745 or email nme.modelismo@clix.pt

i 'ON THE ROAD' MODELLING CLUB from Brugge (Belgium) for all civil vehicle modellers. For more information please contact Peter D'Hollander@village.uu.net.be or Tel: 053/77.47.18.

GREATER PETERBOROUGH MODEL CLUB For more details contact Keith Boucher, Tel: 01733 242683

PEMBROKESHIRE PLASTIC MODELLER'S SOCIETY. A friendly group of like-minded individuals from all spectrums of the plastic modelling fraternity who meet fortnightly to exchange information and techniques to assist each other in their hobby. Contact: Mark at Merlin Models on 01437 762333 or e-mail mark.rosser@btinternet.com

THE PENNETT MODEL MAKERS SOCIETY. For more details contact John Boucker on 01384 834437.

PLYMOUTH SCALE MODEL ASSOCIATION. Contact Roger Haskell on 01752 267527 after 6pm.

i PMC KOELN E.V., Germany. For more information contact Michael Winkler, Mertener Str.6, D-50321 Bruehl, Germany or Email: nc-winklemi@netcologne.de

POOLE SCALE MODELLERS Contact Malcolm on 01202 694037.

POOLE VIKINGS MODEL CLUB (Incorporating Dorset IPMS). For more details contact Paul Moores on 01202 483932.

THE POTTERIES MODEL CLUB, Stoke-on-Trent. For more information contact the club secretary Alan Ewart on 01782 388892.

i ROARING 40s MODEL CLUB, IPMS Otago/Southland (New Zealand). Contact Lloyd Stridiron, 131 Black Road, Otatara 9 RD, Invercargill. Tel: (03) 213 0479 Email: tigmoths@southnet.co.nz Web: www.geocities.com/roaring40sdunedin/index.html. We meet weekly.

ROBERTSBIDGE AVIATION SOCIETY MODEL Club. Please contact David Morrice, 27 Derwent Drive, Tunbridge Wells, Kent. TN4 9TB Tel: 01892 520856

ROMSEY MODELLERS meet third Thursday of the month at the The Red Cross Hall, Great Well Drive, Romsey. For further information contact Les Cooper, 28 The Tyleshades, Romsey. SO51 5RJ. Tel: 01794 522968.

SALISBURY IPMS. Please contact: Peter James, 'Lothlorien', 18 Ilyton Avenue, Firsdown, Salisbury, Wilts, SP5 1SH. Tel: 01980 862403.

SHROPSHIRE SCALE MODELLERS (IPMS Telford). Contact Gary Stevens, 8 Whitemere Road, Shrewsbury, SY1 3BT.

i THE SILICON VALLEY SCALE MODELERS meet at the Los Altos Public Library, Los Altos, California on the third Friday of every month. For more details contact Chris Bucholtz on (408) 723 3995 or Email bucholtz@aol.com

IPMS SOUTH EAST ESSEX/SOUTHEND- ON-SEA). Contact Simon Oliver on 01702 614831 (after 7pm) or John Drummond 01702 205494 (after 7pm).

SOUTH CHESHIRE M.M.C. (Crewe). Meet every other Wednesday at the Crosville Social Club in Crewe. For more details contact Phill Podmore, Tel: 01270 256 880.

SOUTH LONDON SCALE MODEL CLUB. For details and an information sheet, please ring Steve Hubbard on 020 8514 3840 or 0860 228194.

i SOUTH SHORE IPMS, Pembroke, MA (USA). For more details contact Bob Burnside Tel: 617 659 4883.

i IPMS SPAIN (Amigos Modelistas Placentinos), Apdo. de Correos 287, 10600 Plasencia, Spain. Contact Julian Herrero Email: mig21@retemail.es

SPRUES-R-US Scale model club meets every second Wednesday of the month in the Methodist Hall, North Road, Letchworth, Hertfordshire at 7.30pm. For further details please contact Peter Magee on 01462 640642 or Peter Park on 01462 675779.

ST. EDMUNDSBURY SCALE MODELLERS. Contact Rod Jones (Secretary) on 01284 - 766104.

STAFFORD IPMS MODEL CLUB. For information contact; Terry Campion, 3 Leedhams Croft, Walton-on-Trent, Swadlincote, Derbyshire. DE12. Tel: 01283 713602.

STIRLING & DISTRICT MODELLERS SOCIETY SAE for programme to W. Wood, 37 Woodlands, Sauchie, Clacks. FK10 3PJ. Tel: 01259 722428.

SUNDERLAND SCALE MODEL CLUB meets in Fulwell, Sunderland. Contact Peter Hall 0191 513 0489 or David Dykes 0191 548 7777.

SUSSEX MODEL GROUP. For information please contact 01403 782638.

NORTH SURREY MILITARY MODELLING GROUP For more information contact Keith Goldsworthy on 020 887327886 or Kevin Jarrett on 020 83938534. Alternatively you can Email the club at nsmmc@cwcom.net

SUTTON COLDFIELD MODEL MAKERS' SOCIETY For more information contact Robert Day, 'Ashgrove', Didgley Lane, Fillongley, Coventry. CV7 8DQ. Tel: 01676 540469.

SWANSEA MILITARY MODELLING SOCIETY. Held in Morriston, Swansea on the second Wednesday of each month. Contact Keith Ryder (Branch Secretary) on 01792 815710 or Email keith_ryder@hotmail.com

TAYSIDE MODELLING SOCIETY. Details from Keith Herd, 38 Ashgrove, Perth. Tel: 01738 629555 (Sorry no under 16's).

i IPMS/USA SUPERGLUERS OF SAN ANTONIO, TEXAS, USA. For more information contact Thunderbolt Hobbies (Tel: [210] 736 0768) and ask for Bob Kelly, Ian Hemmings or Skippy Harris.

i THE OKLAHOMA HISTORICAL MODELERS SOCIETY. For more information contact David Kimbrell at ivandak@aol.com or Rick Jackson at rjackson@socket.net

THURROCK SCALE MODEL CLUB. For more information please contact John Davies on 01375 406895 or Steve Moore on 0708 853139.

THAMES VALLEY SCALE MODELS CLUB. For further details please contact Keith Sherwood on 01494 533778.

WALLINGFORD (IPMS). For more details contact Club Secretary Phil Golding on 01491 201827 or George Clark on 01491 201902.

WARRINGTON (IPMS). For details contact Dave Foxall on 01925 825619.

WATFORD MODEL CLUB. For more info. contact Nigel Foster on 01525 384875.

WEST BERKS SCALE MODEL CLUB.

Contact Adrian on 01635 49524 evenings before 9pm or write to: 14 Oakley Rd, Shaw, Newbury, Berks, RG14 2PD.

WEST MIDDLESEX IPMS. Contact Les Clancy on 01784 465191 or Tony Horten on 020 8384 3840 for details.

IPMS WEST RIDING new branch sec's email will be martin.johnston2@ntlworld.com Tel: 01132943321.

YORK & DISTRICT PLASTIC MODELS SOCIETY. Contact Chris on 01430 873408 or Joel on 01904 766895.

New Model Clubs Forming

i SIGPMA A NEW SIG for all those interested in Portuguese Military Aviation. Contact: P.O. Box 52054, 4202 - 801 Porto, Portugal. Email: ruidom@mail.telepac.pt

i YU AVIATION SIG. Please note that this group's Email address has changed from modelart@ptt.yu to yasig@eunet.yu. The group also has a new postal address; Nenad Miklusev, Novosadskog Sajma 16/301, 21000 Novi Sad, Yugoslavia.

i YUGOSLAV AVIATION SIG discussion board at <http://disc.server.com/58276.html>.

i I AM CURRENTLY TRYING TO REVIVE the 1/144th scale military aircraft SIG. If anyone is interested in joining please contact David Campbell, Faircroft, 3 High Street, Stanwick, Northants. NN9 6QA or Email David.Campbell@Tesco.net

Special Interest Groups (SIGs)

i AXIS EAGLES - World War II Axis Aircraft Special Interest Group meets bimonthly at Ashburton Library, 154 High Street, Ashburton, Victoria, Australia. For more info. contact axisagles@ozemail.com.au or jjbaxter@techinfo.com.au

IPMS GULF WAR SIG. For more details contact Gary Madwick, Brook Barn, Letcombe Regis, Wantage, Oxon, OX12 9JD. Tel: 01

readers' classified

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Modelling 1986-95 (£10), 182 copies of Scale Models 1971-90 (£20), 38 copies of Aircraft Modelworld 1984-89 (£4), 15 copies of Almark Modelworld 1972-74 (£2) and 10 copies of Military Modelling 1971-5 (£1) or entire collection for £30. Buyer collects, SAE for lists. Contact K. Lane, 60 Keble Drive, Aintree, Liverpool. L10 3LE. Tel: 0151 520 1970.

Large collection of unmade kits.

All subjects, aircraft, armour, cars & motorcycles, all scales. For full list please call 02476 416784.

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100+ completed model aircraft,

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Last Remaining items in collection

for sale, mostly 1/72nd aviation and AFVs, including accessories and decals at highly discounted prices. Tel: 01244 811528, write to R Rogers, 73 Golftyn Drive, Deeside, CH5 4BQ for lists, or e-mail: Amercoline1@aol.com

18 years of Windsock magazine,

(Vols. 2 to 19), 100 issues of WWI Datafiles and specials, and many early Merlin/ Pegasus kits. Contact Colin Hamling on 01737 843047 or CHtrainmaster@aol.com for lists.

WANTED

Kit catalogues from 1970s thru to present (any quantity), especially Airfix 1981, 1982 & 1993 and Tamiya 1969 to 1972, 1974 & 1976. Also looking for unwanted kit instructions/header cards and box tops/colour option illustrations etc to help me build up my reference library of same. Contact R.A. Franks at PO Box 426, Bedford, MK43 0WF, or email me at SAMed@compuserve.com

AMT P-40K or F in 1/48th scale,

also has anybody got a canopy for the old AMT Stinson Reliant in their spares box, as the kit I have has this part missing. Please contact Tony O'Toole, 220 Harbour Lane, Milnrow, Rochdale, Lancs. OL16 4EL. Tel: 01706 715637.

Does anyone have the unit badge

decals from the 1/48th scale Hobbycraft Battle of Britain movie 'civilschmitt' kit that they are willing to part with? Please contact Tony Smith on 01785 606881.

The History of Britains Military

Training Aircraft by R. Sturtivant, published by Haynes Publishing Group. Contact E.P. Staines, 10 Thurby Road, Leicester. LE5 3PD.

Smer 1/72nd scale hi-tech kit

#0887 Spitfire Mk Vb instruction sheet or copy needed. Contact Lucio Cireddu, via Leopardi nr.12, 24127 Bergamo, Italy.

Avro Shackleton Warpaint Series,

must include scale drawings. Contact Martin Garrett on 07932 444321 or Email: smartypants762003@yahoo.com.

Decals for 1/72nd scale Spitfire

DU•N of No.312 (Czech) Squadron from Carpeta sheet #72078. Contact Marco Zenati, via Gasparini nr.11/1, 24125 Bergamo, Italy

Revell 1/32nd scale Harrier kit

transparent sprue. Please contact Keith Poore, 5 Linkfield, Welwyn Garden City, Herts. AL7 4DN. Tel: 01707 333310.

Modellers' Datafile No.1 De

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Looking for old copies of Warlord

[D.C.Thompson] and Battle (Battle/Action) [IPC] (especially 'free gifts' from same), plus annuals and summer specials of the same. Any amount, so check your lofts! Contact R.A.Franks at PO Box 426, Bedford. MK43 0WF, or email me at SAMed@compuserve.com

Scale Plans for Blackburn

Buccaneer S.1, S.2 & S.2B, also Warpaint title on same and Wings of Fame Vol.14. All expenses covered and a good price paid for the books. Please contact Stephen Galvin, 16 Vicarage Street, Hollinwood, Oldham. OL8 4QC

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Offered for exchange, Russian

and Ukrainian die-cast models of cars, trucks and buses in various variants 1/43rd scale. I'm interested in models of cars, trucks and buses in the same scale by western firms. My postal address is: Klimko Igor, Pushkin Street 135, ap. 91 Poltava, Ukraine, 36014. E-mail: i_klimko@mail.ru

PEN PALS

Russia offers: archive photos of

Russia/Soviet aircraft & helicopters, aviation literature, postcards, model kits, accessories, decals in exchange for aviation literature. Contact Victor Kulikov, 129515 Moscow, PO Box 59, Russia. E-mail: viktor_kulikov@rambler.ru or viktor_kulikov@mail.ru

Please Note... Submissions to the Readers' Classified section will be accepted in either typed or hand-written formats. Please note that the latter must be clear and in capital letters. We must insist on this, as a number of problems have arisen due to unclear handwriting in previous advertisement submissions.



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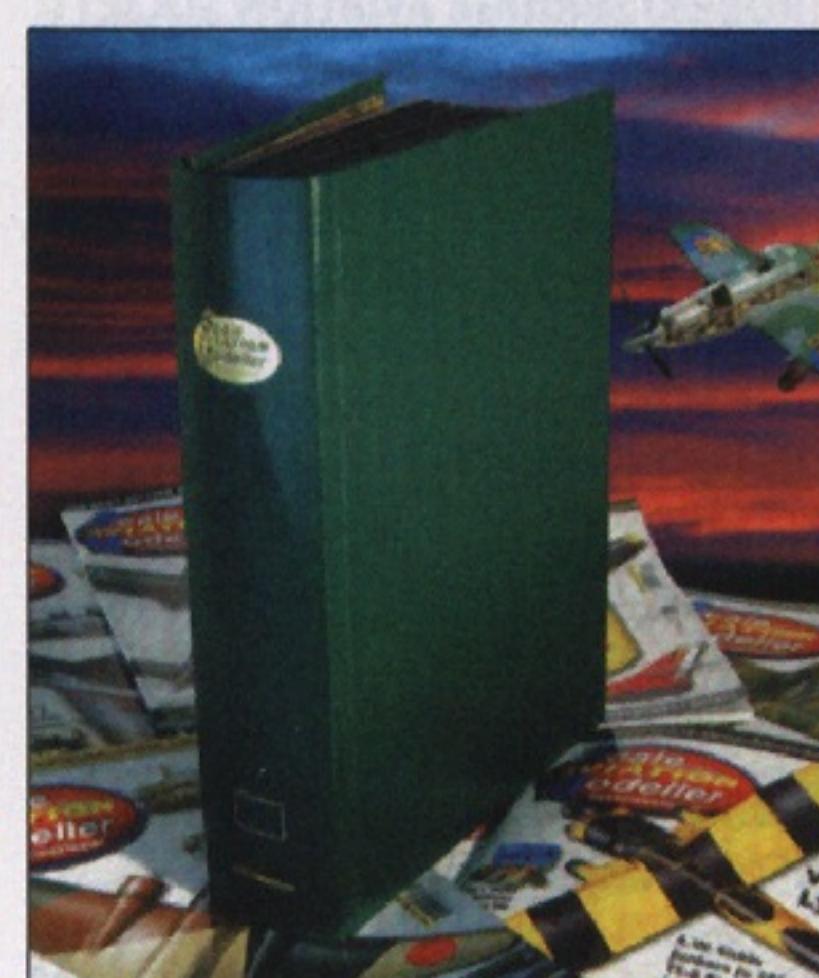
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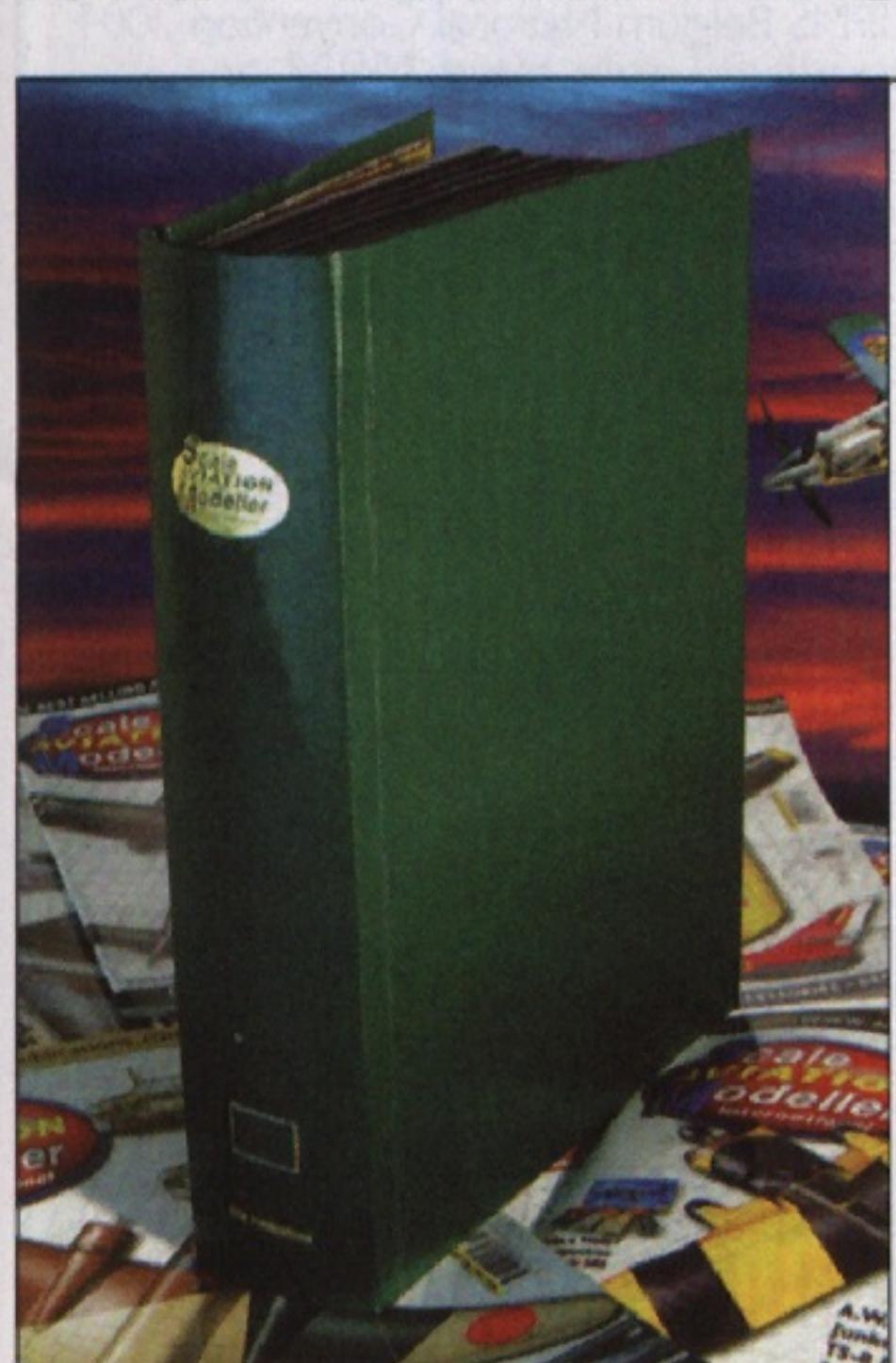
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events diary

2004

● April 3rd

Poole Vikings (IPMS Dorset) Annual Model Show at Poole Grammar School, Gravel Hill, Poole Dorset. For further information contact Andy Sweet (01202) 743494 or e-mail poole.vikings@virgin.net

● April 4th

Shropshire Model Show at the RAF Museum, Cosford. For more details contact The RAF Museum Cosford, Cosford, Shifnal, Shropshire. TF11 8UP. Tel: 01902 376200

● April 10th

Plymouth Model Show 2004 at the Plymouth Guild Hall. Contact Alan Edhouse, Tel: 01752 262340

● April 17th

Sword and Lance 2004 at The Arts Centre, Vane Terrace, Darlington. For more details contact Colin Holmes, 127 Dinsdale Crescent, Darlington, Co. Durham. DL1 1EZ, Tel: 01325 489801 or Email: colin.holmes@whsmithnet.co.uk

● April 17th & 18th

The Third Figure Tournament of the 'Leon Rampante' at the Sierra real Hotel, Alpedrete, Madrid, Spain. Contact Raúl G. Nomaldia, Tel: +34 91 857 00 08 or email andrea@andrea-miniatures.com

● April 18th

East Midlands Model Show 2004 at Hinckley Leisure Centre. Further details from Gordon Upton on 01455 230952 or visit www.modelspot.com/show99/04.htm

● April 20th to May 1st

NOREASTCON 2004, Schoharie, New York, USA. The 34th Annual IPMS Region 1 Convention will be held at the Holiday Inn Express, located at exit 23 on Interstate Rt.88 in Schoharie, NY. Contact Bill Ellis by mail at 547 Washington Ave, Albany, NY 12206 or visit our website at <http://www.aloder.freetyellow.com/noreastcon2004.html>

● April 24th & 25th

2004 Scottish National Model Championships, Dewars Centre, Glover Street, Perth. 10am to 5pm both days. Lots of club and trader displays as well as competition. For more information see www.scotnats.org.uk or contact Willie Wood on 01259 722428 or email info@scotnats.org.uk. Traders contact Andy Macrae on 0131 669 0170 or email traders@scotnats.org.uk

● April 25th

P.B.F.A. Military, Aviation and Naval book fairs will be at the Novotel Hotel, Fishergate, York. 10am to 4pm. Enquiries Tel: 01763 248400 or Email: info@pbfa.org

● April 25th

Gatwick Aviation Society Aviation/Airline Fair, Crawley Leisure Centre, Crawley, Sussex. Tel: 01403 252628

● April 25th

IPMS Lakes Region Scale Modelers and C.A.R.S in Miniature present the tenth annual Northern Illinois Modelers Open (NIMO 10) contest and show at McHenry County College, Rt. 14 in Crystal Lake, IL, USA. For information visit <http://www.geocities.com/nimoshow>

● May 13th to 16th

8th Model Show, Oficina da Cultura, Almada, Portugal. For more information contact Pedro Figueira, Apartado 531, Cova da Piedade, 2801-906 Almada, Portugal or Email: amamail@portugalmail.pt

● May 9th

Heathrow (LHR) Aircraft Enthusiasts Fair, Feltham Community College, Bowells Lane, Feltham, Middlesex

● May 22nd

Squadron ScaleFest 2004 at the Mesquite Rodeo Center, Mesquite, Texas. For more information send an SAE to Squadron ScaleFest 2004 PO Box 871416, Mesquite, Texas 75187-1416 or visit www.ipms.nct.org

● May 23rd

The Universal Modelling Society and IPMS Birmingham present Midland Model Expo 2004 at Leasowes Leisure Centre, Kent Road, Halesowen, Near Birmingham. For more details contact D. Jeffrey (Tel: 0121 550 7184), Craig Greville (Tel: 0121 360 4905) or Mike Cook (Email: cook_mike@hotmail.com) or visit our website:

● May 29th, 30th and 31st

'Overlord 2004', The 60th D-Day anniversary show. Five Heads Road, Horndean, Nr. Portsmouth as usual. (just off Junc 2 -A3M). Full arena programme, bar and evening entertainment. Entry and support cars free, no caravan/motorhome restrictions. Chris Pearce (Vehicles) 01489 572582, Richard Notton (Stalls & General) 01329 832616 / 07939 136149 / 023 9278 1888. Fax: 023 9278 7588 e-mail: Richard@fv623.demon.co.uk. Forms on the web for exhibitors and traders from mid Sept: <http://www.solentmvt.co.uk>

● July 4th

IPMS Mid Sussex presents 'A Fort Full of Models' at Newhaven Fort, East Sussex. For more details contact 01444 457382

● July 10th – 11th

IPMS Durham (NEMS) 11th Annual Show at the Brough Hall, The Headlands, Hartlepool. For more information contact Brian Watt, 33 Caverham Road, Chapel House, Newcastle Upon Tyne. NE5 1JP Tel: 0191 2291067, Email: B.P.Watt@btopenworld.com or Paul Bowen, 8 Hollinside Terrace, Highfield, Rowlands Gill, Newcastle Upon Tyne. NE39 2JW. tel: 0120 754667

● June 12th & 13th

North Queensland Model Expo 2004 at The Thuringowa Sound Shell, Townsville, North Queensland, Australia. For more details contact the Club Secretary, Peter Johnstone, Tel: +07 47287003 or Email: peter@pjdesign.com.au

Amay Modeles clubs 15th Modelling day at the IPES Huy, 6 Avenue Delchambre, B-4500 Huy, Belgium. For further information contact J-P Dewar, 88 rue de la Forêt, B-41000 Seraing, Belgium (Tel: 00 32 4 337 07 88) or Email: jean_pol.dewar@teledisnet.be

● August 15th

Redhill Airport. Aviation/Airline Collectors' Fair, Redhill, Surrey. Tel: 01737 822200

● September 5th

Leicestershire IPMS Model Show at Lutterworth Wycliffe Rooms, Leicestershire. For more information contact Martin Connolly on 01455 284600 or email connollyshouse@aol.com

● September 5th

Aero Space & vehicle club Model show at The Community Centre, Church RToad, Woombourne, nr Wolverhampton, West Midlands. For more details contact J. Carter, Tansy Field, Bayton Common, Kidderminster, Worcestershire. DY14 9NN or D. Cattell, 43 Balmoral Drive, Willenhall, West Midlands, WV12 5TH

● September 19th

Wings and Things 2004 Model Show presented by IPMS Fenland and Spalding Model Club at the Grammar School, Spalding. All proceeds go to the Air Ambulance. Admission £1.00 (OAP and under 16s FREE). 10.00 to 4.00pm. For more information contact Pete on 01775 767729 or Mick on 01553 827126

● September 21st to 25th

Africa Militaire 2004, Pretoria, South Africa. For more information contact Bobby Keller, tel: +27 12 6715493, Fax: +27 12 6638552, Mobile: +27 836615694, Email: commshop@mweb.co.za or visit www.aadexpo.co.za

● September 25th

Aeronautical Collectors' Fair, Shoreham airfield, Sussex. For more information contact 01424 440644

● October 2nd

Glasgow Model Show 2004 organised by Glasgow IPMS and Miniature Armour Group at the Kelvin Hall on Argyle Street in Glasgow

● October 2nd – 3rd

IPMS Belgium National Convention 2004 at the Oktoberrhalle of Wieze, 20 km from Brussels. For more information visit www.ipms.be in late May or early June. Clubs, exhibitors or traders wanting an event file (to be sent around the same period) can forward their address to didier.waelkens@skynet.be or IPMS Belgium, Esdoornlaan 33, B-1850 Grimbergen, Belgium

● October 9th

Rushmoor Model Show, Shakespeare Road, Bedford. For more information contact Tony Issott, Silverlink 2B, King Street, Kempston, Bedfordshire, MK42 8BN

Events

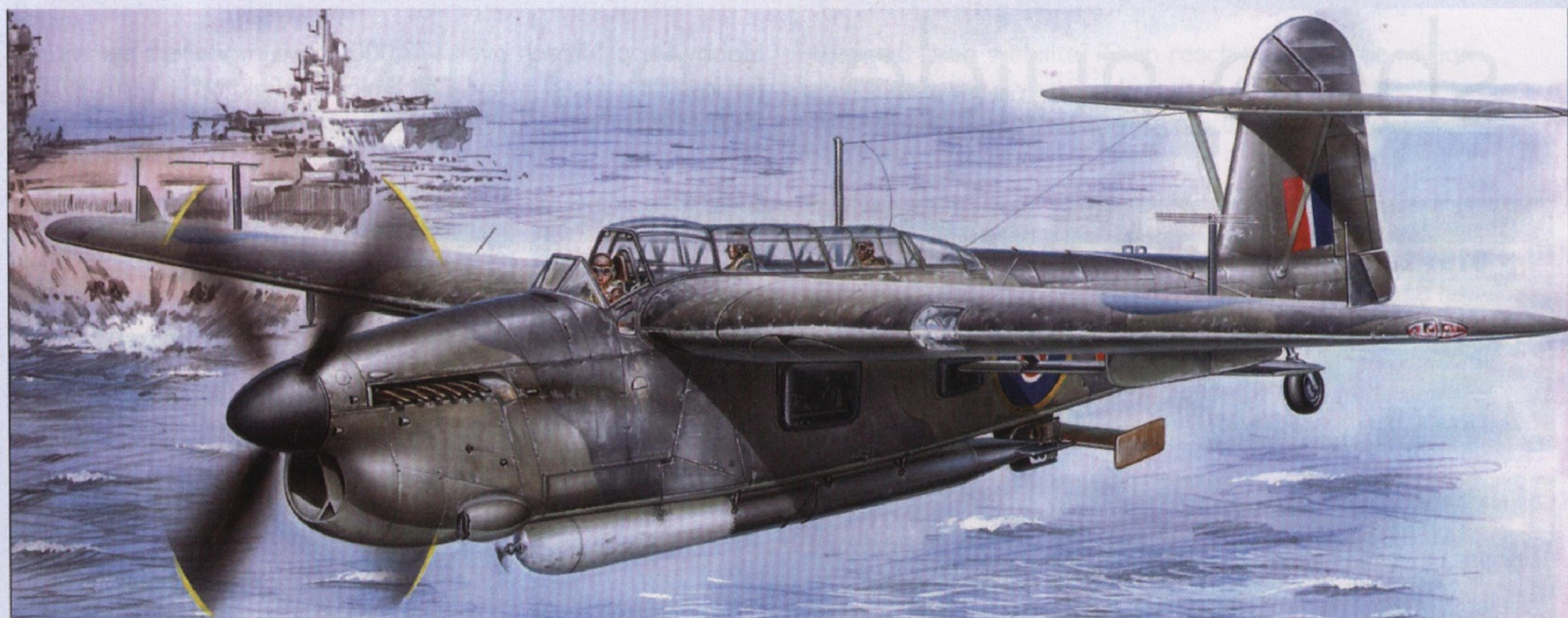
Scale Aviation Modeller International will advertise forthcoming events in this column free of charge for event organisers who wish to give advance notice of their shows. We will continue to run your notice until the event is held, space permitting.

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